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U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

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If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

*** *** ***

TRANSPORTATION RESEARCH CENTER

Indiana University
[redacted] Indian[redacted]

ON-SITE AIR BAG INVESTIGATION

CASE NO. - 93-07
FLEET - PRIVATE VEHICLE
LOCATION - [redacted] ILLINOIS
ACCIDENT DATE - [redacted] 1993

Submitted By:

[redacted]
Associate Scientist

[redacted], 1993

Contract Number: DTNH22-93-A-07485

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the precrash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
TRC/IU Case No. 93-07		

4. Title and Subtitle	5. Report Date
On-Site Air Bag Investigation Fleet - Private Vehicle Location - [redacted], Illinois	[redacted] 1993
	6. Performing Organization Code
7. Author(s)	8. Performing Organization Report No.
[redacted]	TRC/IU 93-07, Task 0103
9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Indiana University Transportation Research Center [redacted]	11. Contract or Grant No. DTNH22-93-A-07485
	13. Type of Report and Period Covered
12. Sponsoring Agency Name and Address U.S. Department of Transportation (NRD-32) National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590	[redacted] 1993
	14. Sponsoring Agency Code

15. Supplementary Notes

On-Site air bag investigation involving a 1990 Dodge Daytona

16. Abstract

This report covers an on-site investigation of an air bag nondeployment crash that involved a 1990 Dodge Daytona and a 1987 Pontiac Fiero. The Daytona was traveling north in the northbound lane of a two-lane, undivided, county roadway. The Fiero was traveling west in the westbound lane of a two-lane, undivided, county roadway. The case vehicle impacted the Fiero and subsequently rolled over. The Daytona was equipped with a driver supplemental restraint system (air bag) which did not deploy as a result of the right front impact. Because the right front impact generated, primarily, a lateral force to the Daytona and because the air bag system is not designed to deploy as the result of a lateral force, the Daytona, therefore, did not sustain a longitudinal deceleration of sufficient magnitude to deploy the air bag. The driver of the vehicle (28 year-old female) was not wearing the available active three-point lap and shoulder belt. The driver was ejected out the backlight and was found just west of the Daytona's final rest position. She sustained fatal injuries from impacting the right corner of the cargo area, including multiple lower left rib fractures and a massive hemothorax (i.e., estimated at between 2000-3000 ccs) which resulted in cardio-pulmonary arrest from exsanguination. According to the Police Accident Report, the driver of the Fiero was listed as restrained and sustained "A" (incapacitating) injuries.

17. Key Words	18. Distribution Statement
Motor Vehicle Traffic Accident Air Bag Nondeployment Injury Severity	General Public

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	87	

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TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. - 93-07

FLEET - PRIVATE VEHICLE
LOCATION - [redacted], ILLINOIS

Summary

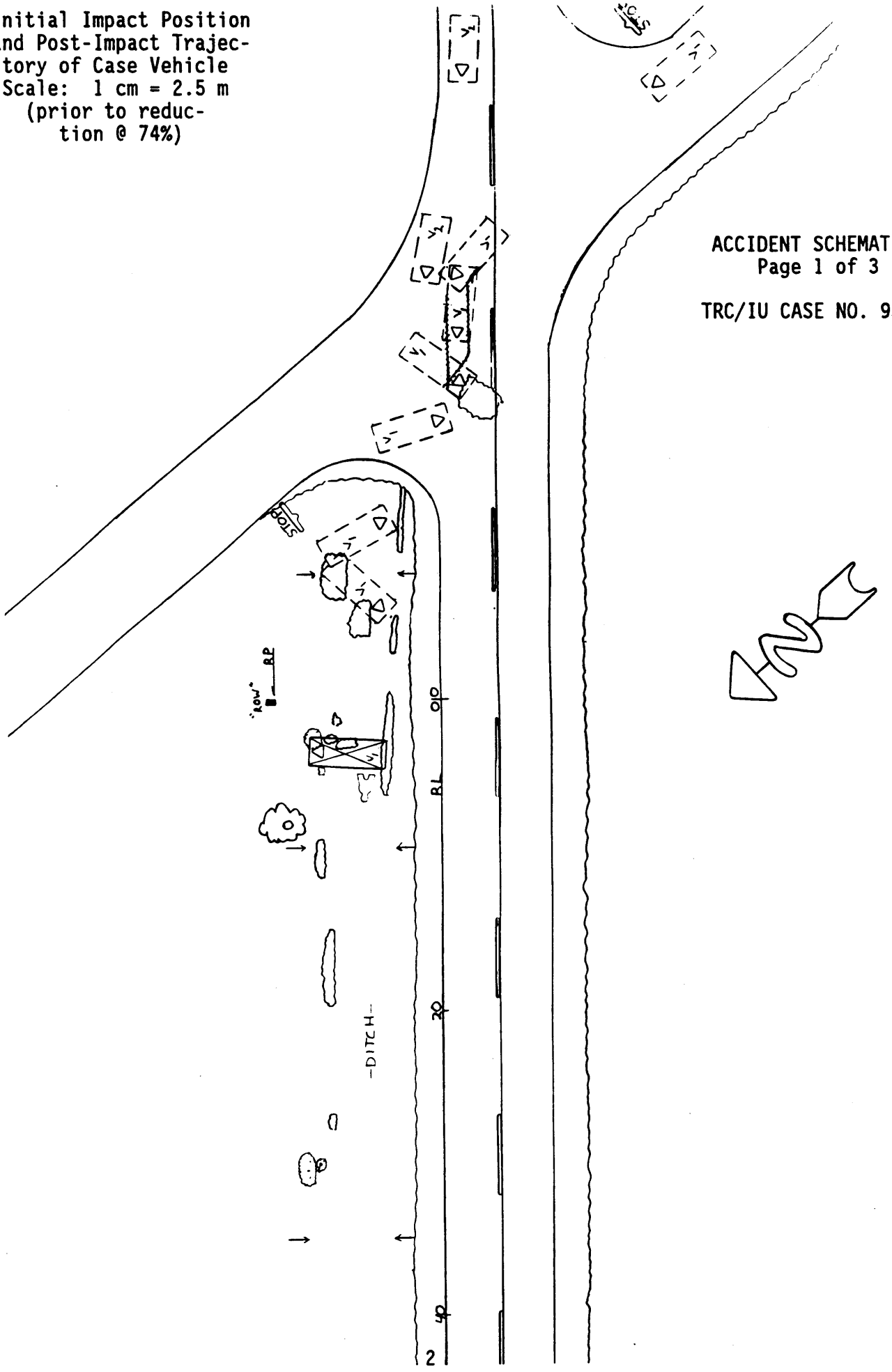
This report concerns a motor vehicle crash involving an air bag equipped 1990 Dodge Daytona and a 1987 Pontiac Fiero occurring on [redacted], 1993 at [redacted] a.m., near [redacted], Illinois on a county road. This investigation was undertaken in response to a report to the Office of Special Crash Investigations of the National Highway Traffic Safety Administration (NHTSA), National Center for Statistics and Analysis (NCSA), from the [redacted] State Police. This crash was reported to NHTSA as an air bag nondeployment resulting in fatal injuries to the driver of the Dodge Daytona.

The Daytona was traveling north on a two-lane, undivided, county roadway when it impacted the Fiero which was traveling west on a two-lane, undivided, county roadway. The crash occurred in the intersection of the two roadways. The Daytona rotated approximately 180 degrees counterclockwise after its initial impact. During the rotation the case vehicle departed the northwest edge of the intersection and impacted the north slope of the ditch with the right quarter panel. After impacting the ditch the Daytona rotated clockwise and rolled over two quarter turns. The Daytona came to rest facing north on its top in the ditch northwest of the intersection. The Fiero continued in a northwesterly direction after its initial impact and departed the northwest edge of the intersection. As the Fiero traveled along the south slope of the ditch, the left front wheel dug into the ditch causing the Fiero to rotate approximately 90 degrees counterclockwise and impact the right rear wheel and quarter panel into the north slope of the ditch. Exactly what happened next is not clear; however, the preponderance of the evidence indicates that this impact caused the Fiero to roll over four quarter turns while continuing to rotate approximately an additional 90 degrees counterclockwise. During the rollover, the Fiero impacted a small tree along the north slope of the ditch. The Fiero came to rest facing east on its wheels in the ditch northwest of the intersection.

The right front of the Daytona impacted the left front of the Fiero. CDCs were determined to be: 04-RYEW-3, 00-RBEW-2, and 00-TDDO-3 for the Daytona and 11-LDAW-3, 03-RBWN-2, and 00-TBDO-6 for the Fiero. The CRASHPC reconstruction program could not be used on any of the impacts to the Daytona or the Fiero.

The 1990 Dodge Daytona was equipped with a driver supplemental restraint system (air bag) which did not deploy as a result of the right front impact. The driver of the vehicle (28 year-old female) was not wearing the available, active, three-point, lap and shoulder belt. The driver was ejected out the backlight and was found just west of the Daytona's final rest position. She sustained fatal injuries including multiple lower left rib fractures and a massive hemothorax (i.e., estimated at between 2000-3000 ccs) which resulted in cardio-pulmonary arrest from exsanguination. The driver of the Daytona was listed on the Police Accident Report as sustaining a "K" (fatal) injury as a result of her crash. The driver (33 year-old male) of the Fiero was listed on the Police Accident Report as restrained and sustaining an "A" (incapacitating) injury.

Initial Impact Position and Post-Impact Trajectory of Case Vehicle
Scale: 1 cm = 2.5 m
(prior to reduction @ 74%)



ACCIDENT SCHEMATIC
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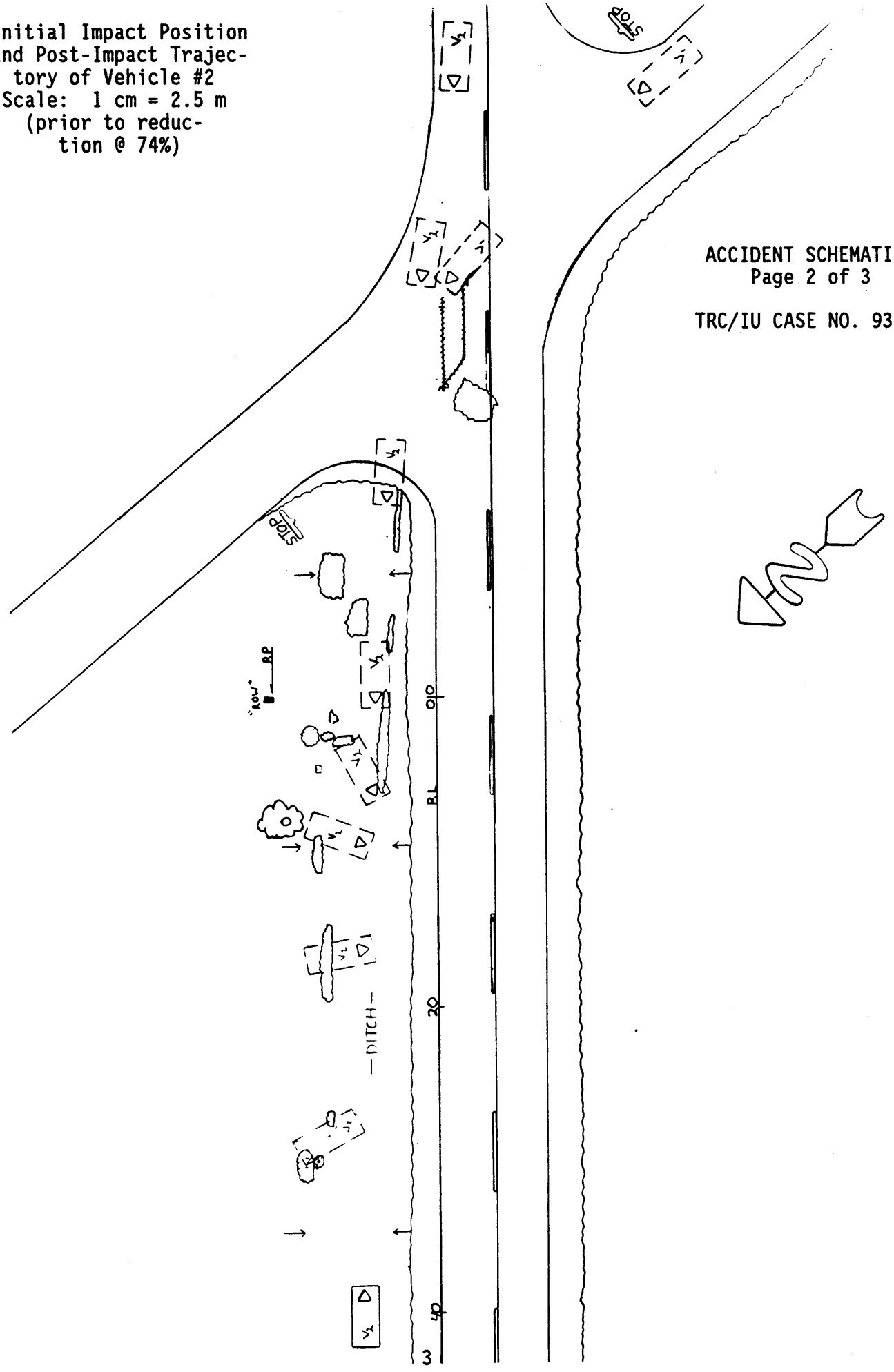
TRC/IU CASE NO. 93-07

Initial Impact Position and Post-Impact Trajectory of Vehicle #2
Scale: 1 cm = 2.5 m
(prior to reduction @ 74%)



ACCIDENT SCHEMATIC
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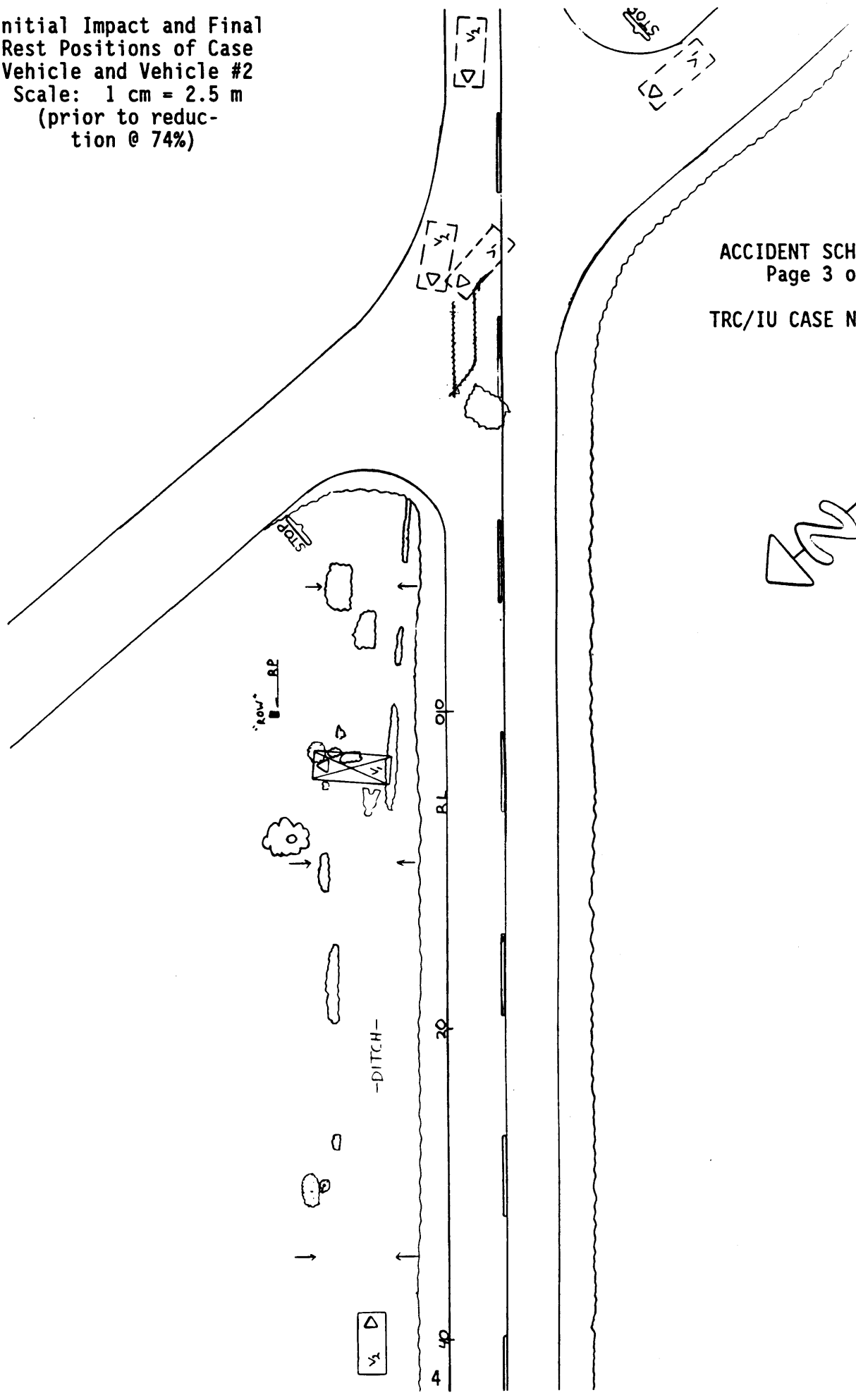
TRC/IU CASE NO. 93-07

Initial Impact and Final Rest Positions of Case Vehicle and Vehicle #2
Scale: 1 cm = 2.5 m
(prior to reduction @ 74%)



ACCIDENT SCHEMATIC
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TRC/IU CASE NO. 93-07

TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. - 93-07

FLEET - PRIVATE VEHICLE
LOCATION - [redacted] ILLINOIS

ACCIDENT DATA

Location/Street:	County Road
City/Township:	[redacted] County, near [redacted] Illinois
Area/Type:	Rural/Agricultural
Accident Date/Time:	[redacted] 1993 @ [redacted] a.m.
Investigating Police Agency:	[redacted] State Police
Accident Type:	Car / Car - acute angle
Occupant Injury Severity (air bag vehicle):	Multiple Left Rib Fractures with massive (2000-3000 ccs) hemothorax (AIS-4)

AMBIENT CONDITIONS

Light conditions:	Darkness
Weather Condition:	Clear
Precipitation:	None
Road Surface:	Dry

ROADWAY

	Case Vehicle	Vehicle #2
Location:	County road	County road
Number of Travel Lanes:	2-lanes, undivided	2-lanes, undivided
Width:	3.0 meters (9.8 feet)	3.6 meters (11.8 feet)
Surface Type:	Asphalt base with gravel	Asphalt
Median:	None	None
Shoulders:	Grass	Grass
Vertical alignment:	Level	1.6% negative to west

ROADWAY (CONT'D.)

	Case Vehicle	Vehicle #2
Horizontal alignment:	Straight	Straight
Estimated Coefficient of Friction (in area of initial impact)	.68 estimated	.68 estimated
Traffic Density:	Light	Light

TRAFFIC CONTROLS

	Case Vehicle	Vehicle #2
Signals:	None	None
Signs:	Stop sign	None
Markings:	None	Broken yellow center line
Speed Limit:	89 k.p.h (55 m.p.h.)	89 k.p.h. (55 m.p.h.)

VEHICLES

	Case Vehicle	Vehicle #2
Year:	1990	1987
Make:	Dodge	Pontiac
Model:	Daytona	Fiero GT Coupe
Body Type:	2-door hatchback	2-door
V.I.N.:	1B3XG44K2LG------	1G2OG1198HP------
Color:	Blue	Copper
Mileage:	115,120 km (71,534 mi)	Unknown
Engine:	2.5 liter EFI	2.8 liter V-6 FI
Transmission:	Automatic	Unknown
Steering:	Power-assisted, rack-and-pinion	Unknown
Brakes:	Power-assisted, front disk, rear drum	Unknown
Padding:	Instrument panel, steering wheel, doors	Unknown

VEHICLES (CONT'D.)

	Case Vehicle	Vehicle #2
Active Restraints:	3-point lap and shoulder belts at front and rear outboard seating positions, no rear center seating position	3-point lap and shoulder belts at front outboard seating positions
Passive Restraints:	Factory installed driver supplemental restraint system (air bag)	None
Defects:	None	Unknown
Fleet:	Private vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

VEHICLE DAMAGE

Exterior	Case Vehicle	Vehicle #2
1st Nondeployment Impact		
Event number:	1	1
Object Struck:	Vehicle #2	Case Vehicle
Damage location		
Damaged Plane:	Right side	Left side
Vertical Location On Plane:	Mid-door level	Mid-door level
Direct Begins:	176 cm (69.3 in) forward of right rear axle	Unknown
Length Direct:	157 cm (61.8 in)	Unknown
Field L:	80 cm (31.5 in)	Unknown
C_1:	0 cm (0.0 in)	Unknown
C_2:	5 cm (1.8 in)	Unknown
C_3:	10 cm (3.9 in)	Unknown
C_4:	11 cm (4.3 in)	Unknown
C_5:	18 cm (7.1 in)	Unknown
C_6:	27 cm (10.6 in)	Unknown
D:	+130 cm (51.2 in)	Unknown
Maximum Crush:	27 cm (10.6 in)	Unknown
Location:	C_6	
CDC*:	04-RYEW-3	11-LDAW-3

* See discussion under Vehicle Velocity Estimates below (i.e., page 10).

VEHICLE DAMAGE (CONT'D.)

Exterior (Cont'd.)	Case Vehicle	Vehicle #2
1st Nondeployment Impact (Cont'd.)		
Damaged Components:	Right front fender, door, frame, and bumper	Left front: fender, wheel, door, sill, and A-pillar; and roof
2nd Nondeployment Impact		
Event number:	2	3
Object Struck:	Ditch	Ditch
Damage location		
Damaged Plane:	Right side	Right side
Vertical Location On Plane:	Sill level	Right rear wheel
Length Direct:	118 cm (46.5 in)	Unknown
Direct Begins:	91 cm (35.8 in) rear of right rear axle	Unknown
Field L:	118 cm (46.5 in)	Unknown
C_1:	0 cm (0.0 in)	Unknown
C_2:	9 cm (3.5 in)	Unknown
C_3:	6 cm (2.4 in)	Unknown
C_4:	0 cm (0.0 in)	Unknown
C_5:	0 cm (0.0 in)	Unknown
C_6:	0 cm (0.0 in)	Unknown
D:	-154 cm (60.6 in)	Unknown
Maximum Crush:	9 cm (3.5 in)	Unknown
Location:	C_2	Unknown
CDC:	00-RBEW-2	03-RBWN-2
Damaged Components:	Right quarter panel, rear bumper, and right rear wheel	Right rear wheel
3rd Nondeployment Impact		
Event number:	4	5
Object Struck:	Ground	Ground
Damage location		
Damaged Plane:	Top	Top
Vertical Location On Plane:	Distributed	Rear of B-pillar
Length Direct:	Distributed	Unknown
Direct Begins:	Not applicable	Not applicable
Field L:	Not applicable	Not applicable

VEHICLE DAMAGE (CONT'D.)

Exterior (Cont'd.)	Case Vehicle	Vehicle #2
3rd Nondeployment Impact (Cont'd.)		
C_1:	Not applicable	Not applicable
C_2:	Not applicable	Not applicable
C_3:	Not applicable	Not applicable
C_4:	Not applicable	Not applicable
C_5:	Not applicable	Not applicable
C_6:	Not applicable	Not applicable
D:	Not applicable	Not applicable
Maximum Crush:	Not applicable	Not applicable
Location:	Not applicable	Not applicable
CDC:	00-TDDO-3	00-TBDO-6
Damaged Components:	Windshield and top	Right quarter panel and top of back panel
Interior		
Damaged Components:	Unknown: driver's seat, roof liner, and a section of the center instrument panel was removed	Unknown
Other Evidence of Occupant Contact:	Center portion of right and left rear bucket seats and rear right corner of cargo compartment	Unknown
Manual Restraint System Failures:	None	Unknown
Seat Performance Failures:	Left rear seat outer hinge pin separated from hinge	Unknown
Repair		
Cost Estimate:	Totalled	Totalled

VEHICLE VELOCITY ESTIMATES

Highest Delta "V"	Case Vehicle	Vehicle #2
Reconstruction Program:	None	None

VEHICLE VELOCITY ESTIMATES (CONT'D.)

Highest Delta "V"	Case Vehicle	Vehicle #2
Program Algorithm:	Not applicable	Not applicable
Travel Speed:	Unknown	Unknown
Total Delta "V":	Unknown	Unknown
Longitudinal Delta "V"*:	Unknown	Unknown
Lateral Delta "V":	Unknown	Unknown

* There was insufficient data to run the CRASH3PC program; however, a vector analysis program was used to iteratively determine the theoretical Direction of Principle Force that would have resulted to both the case vehicle and vehicle #2 given reasonable upper and lower assumptions regarding each vehicle's pre-impact velocity. These vector analysis results, presented in **Appendix B**, in combination with the damage to each vehicle and the initial post-impact trajectories of the vehicles are the basis for our findings pertaining to (1) each vehicle's Direction of Principle Force and (2) that the case vehicle's air bag did not deploy because the case vehicle sustained primarily a lateral force and, therefore, did not sustain a longitudinal deceleration of sufficient magnitude to have caused the air bag's deployment.

COLLISION SEQUENCE

Pre-Crash: The case vehicle (Daytona) was traveling north in the northbound lane of a two-lane, undivided, county roadway and was attempting to continue in its direction of travel. Vehicle #2 (Fiero) was traveling west in the westbound lane of a two-lane, undivided, county roadway and was also attempting to continue in its direction of travel. The direct damage residing primarily on the right front fender of the Daytona, indicates the driver of the case vehicle steered to the left to avoid the collision as her vehicle entered the intersection. The on-scene police photographs showed no pre-impact skid marks (see Photograph #01) in the case vehicle's path of travel. *(Thus, if any pre-impact braking occurred, then it was insufficient to produce lock-wheel skid marks.)* The case vehicle appears to have been angled approximately five degrees to the left from its original path of travel just prior to impact. The absence of direct contact damage to the front of vehicle #2 (see cell **C4** in Photograph #08), the lack of visible pre-impact skidmarks in the westbound lane in the on-scene police photographs (see Photograph #02), and the left side tire divots found on the northwest shoulder and in the ditch indicates that the driver of vehicle #2 steered right as his vehicle entered the intersection. Vehicle #2 appears to have been angled approximately ten degrees to the right from its original path of travel just prior to impact. The crash occurred in the intersection of the two roadways.

Crash: The right front of the case vehicle impacted the left front of vehicle #2. The case vehicle's driver side supplemental restraint system (air bag) did not deploy. The post-impact tire scuff evi-

COLLISION SEQUENCE (CONT'D.)

Crash (Cont'd.) dence visible in the on-scene police photographs (see Photographs #02 and #05), the ground divots in the ditch at the scene (see cells **E5** and **I5** in Photograph #09), and the damage on the case vehicle's right quarter panel indicates that the case vehicle rotated approximately 180 degrees counterclockwise after its initial impact. During the rotation the case vehicle departed the northwest edge of the intersection and impacted the north slope of the ditch with the right rear wheel and quarter panel (see Photograph #30). This impact was of sufficient severity to displace the rear axle to the left and push the right rear wheel inward (see Photograph #11). After impacting the ditch the case vehicle began rotating clockwise and the right front wheel gouged the bottom of the ditch (see cell **E5** Photograph #09) loading the right front wheel with mud (see cells **D4** and **E4** in Photograph #14). The case vehicle rolled over two quarter turns with the right side leading and came to rest facing north on its top in the ditch northwest of the intersection. The evidence in the on-scene police photographs (see Photographs #07 and #21) and the ground divots at the scene indicates that vehicle #2 continued in a northwesterly direction after its initial impact and departed the northwest edge of the intersection. As vehicle #2 traveled along the south slope of the ditch, the left front wheel (see cells **A6** and **B6** in Photograph #25) dug into the ditch (see cell block **F2-I3** in Photograph #14 and cell block **A2-I3** in Photograph #15) causing vehicle #2 to rotate approximately 90 degrees counterclockwise and impact the right rear wheel into the north slope of the ditch. Exactly what happened next is not clear; however, the damage on vehicle #2's right quarter panel (see Photographs #20, #22, and #24) and the visible debris (see photograph #07)--including a portion of the windshield (see cell **E4** in Photograph #08) and the sun roof (see cells **F2** and **G2** in Photograph #20), indicates that this impact probably caused vehicle #2 to roll over four quarter turns while continuing to rotate approximately an additional 90 degrees counterclockwise. *(NOTE: the locations of the crash debris is apparently crash related since an interview with rescue personnel revealed that no vehicular components were removed from the car while extracting the driver.)* During the rollover, vehicle #2 impacted a small tree along the north slope of the ditch (see cell **H4** in Photograph #08). Vehicle #2 came to rest facing east on its wheels in the ditch northwest of the intersection.

Post-Crash:

Occupants: The occupant contact evidence found in the case vehicle and the rest position of the driver visible in the on-scene police photographs indicates that the driver of the case vehicle was ejected through the backlight during the rollover and came to rest in the ditch just west of the case vehicle's right quarter panel. She was unconscious.

Police: The investigating police agency was notified of the accident within approximately thirty minutes and arrived on-scene within approximately fifteen minutes. Traffic control procedures were established and emergency medical, volunteer fire department, and towing services were called to assist.

COLLISION SEQUENCE (CONT'D.)

Rescue: The driver was pronounced dead at the scene and was subsequently transported by ambulance to a medical facility where a noninvasive examination occurred to determine the extent of her injuries.

Removal: Following the police investigation, the case vehicle was towed from the scene.

HUMAN FACTORS/OCCUPANT DATA

	Case Vehicle	Vehicle #2
Driver:	28 year-old female	33 year-old male
Height:	Unknown	Unknown
Weight:	Unknown	Unknown
Occupation:	Homemaker	Unknown
Active Restraint System/Usage:	3-point lap and shoulder/not used	3-point lap and shoulder/used
Usage Source:	Vehicle inspection and police accident report	Police accident report
Eye glasses/contacts:	Unknown	Unknown
Vehicle Familiarity:	Unknown	Unknown
Route Familiarity:	Unknown	Unknown
Trip Plan:	Unknown just prior to crash	Returning home from work
Manner of Leaving Scene:	Ambulance	Ambulance
Type of Medical Treatment:	Dead at scene	Hospitalized

DRIVER INJURIES

Injury	Severity (AIS)	Source
Fractured left ribs: 7-10 with massive hemothorax (2000-3000 ccs)	450232.4,2	Right rear corner of cargo area
Abrasions, small, face	290202.1,9	Backlight
Lacerations, small, face	290602.1,9	Backlight
Abrasions, small, thorax	490202.1,9	Backlight
Lacerations, small, thorax	490602.1,9	Backlight

DRIVER INJURIES (CONT'D.)

Injury	Severity (AIS)	Source
Abrasions, small, abdomen	590202.1,9	Backlight
Lacerations, small, abdomen	590602.1,9	Backlight

DRIVER KINEMATICS

The initial posture of the driver just prior to the impact is not known. The damage locations on both vehicles (i.e., primary contact area was the right front fender on the case vehicle and the left front fender on the Fiero) indicate that the driver steered her vehicle to the left just prior to the impact resulting in the "right front side"-to-"left front side" impact configuration. *(NOTE: had the case vehicle continued straight through the intersection in accordance with her original path of travel, the impact would have come through the front plane at the front right bumper corner. Photograph #26, cells C7 and M8, shows only minor scratches and an unbroken headlight and running light at the front right bumper corner.)* The four o'clock force direction to the case vehicle and subsequent counterclockwise rotation would result in a rightward and rearward movement of the unrestrained driver. No evidence of occupant contact was found on the steering wheel, air bag cover, or instrument panel--left, center, or right. As the vehicle rotated counterclockwise, it departed the northwest edge of the intersection and impacted the north slope of a ditch with the right rear wheel and right quarterpanel. This impact had a sufficient rearward force component to thrust the driver rearward between the front seats and into the rear seat backs. The contact with the rear seat backs displaced them rearward and to the right (see photographs #38 and #50) causing the left hinge pin on the left rear seat back to separate from the hinge (see slide #85). The driver then contacted the plastic fascia in the right rear corner of the cargo area (see photograph #51) cracking and scuffing the plastic and displacing the left portion of the rear plastic fascia forward (see cell block F3-I3 in photograph #52). Because of the right rear impact, the case vehicle reversed its rotation from counterclockwise to clockwise. As the case vehicle rotated clockwise it began to roll over causing the driver to be ejected out the backlight and come to rest westward and near the right wheel and quarter panel of her car.

AIR BAG SYSTEM

Deployment Threshold:	Equivalent frontal barrier impact between 13 and 23 k.p.h. (8 and 14 m.p.h.)
Airbag Diameter (seam-to-seam, deflated):	Unknown -- nondeployed air bag
Number of Vent Holes:	Unknown -- nondeployed air bag
Vent Hole Diameter:	Unknown -- nondeployed air bag
Vent Hole Clock Positions:	Unknown -- nondeployed air bag
Generant Residue:	None -- nondeployed air bag

SELECTED PRINTS

A total of fifty-two color copies of photographs are presented and referenced as Photograph #01 through Photograph #52. Photographs numbered #01 through #25 were taken and made available by the [redacted] State Police. Photographs numbered #26 through #52 were taken by the Transportation Research Center.

"GRAPHIC"
PHOTOGRAPHS AND IMAGES

The following "GRAPHIC" Photographs and Images have been removed from this case.

Photo # 11-14

If you would like a copy of these photographs and/or images please write to:

MARJORIE SACCOCCIO
VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
55 BROADWAY
CAMBRIDGE, MA 02142

In the body of your request please include the case, photograph and image number(s).

01 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Daytona's northward approach to impact area

02 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Fiero's westward approach to impact area

03 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: looking south
opposite Daytona's approach

04 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: fluid spill west
of intersection from north

05 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: impact area and
Daytona's post-impact scuffs

06 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Daytona's final
rest position facing north

07 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Fiero's impact
with embankment & final rest

08 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Fiero rotated
CCW & went westward to FR

09 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: roadside divot
and trip point for Daytona

10 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: looking west at
Daytona's FR facing north

15 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: looking south at
Daytona at final rest

16 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Daytona at body
shop post removal from scene

17 - [redacted], 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Daytona front & right side at body shop

18 - [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Daytona steering wheel & nondeployed air bag

19 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: closeup of air bag cover through LF window

20 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: looking north at Fiero at FR facing east

21 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: looking NE at
proximity of Fiero & Daytona

22 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: closeup of Fiero
right-rear damage

23 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: looking east at
Fiero's final rest position

24 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Fiero's right
side damage

25 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
ISP Photo: Fiero's left side damage

26 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Dodge Daytona's front damage

27 -- [redacted], 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's damage
from front-left perspective

28 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's damage
from back-left perspective

29 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's back damage

30 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: closeup damage & grass at right-rear area

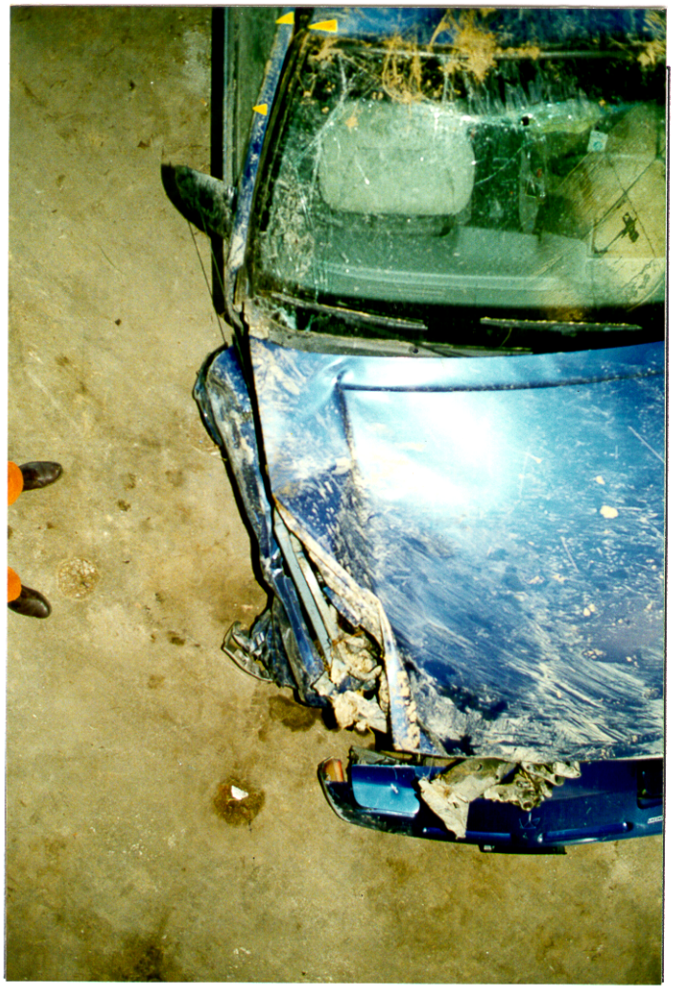
31 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's right side damage

32 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: closeup damage at right-front area

33 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's damage
from front-right perspective

34 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's damage
from top-front perspective

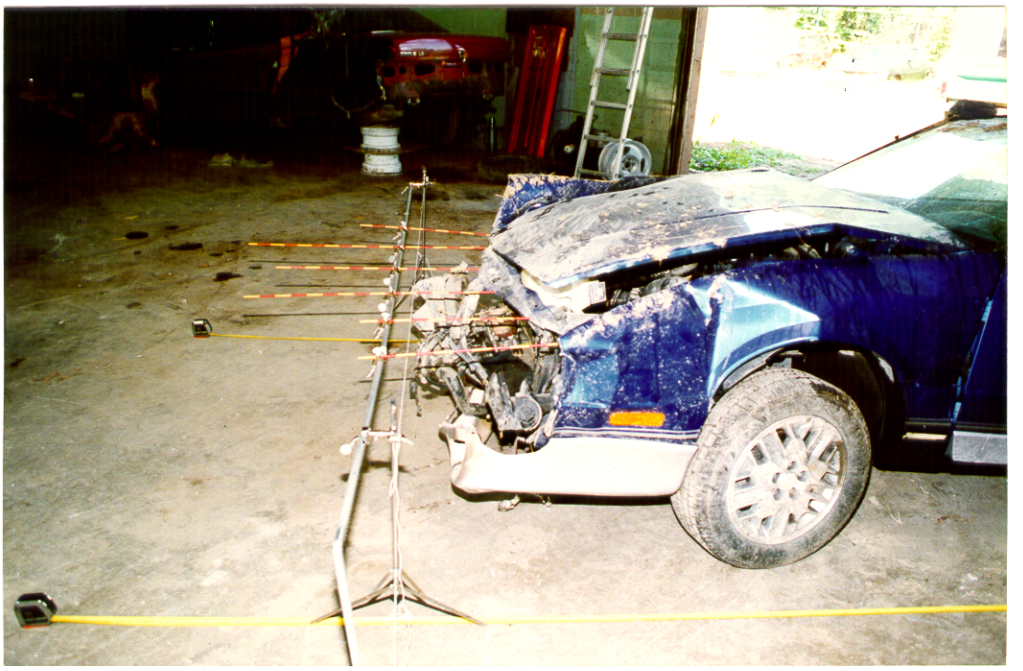
35 -- [redacted], 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: Daytona's damage from top-right perspective



36 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: rollover damage of roof area from top-back

37 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: rollover damage
from top-left perspective

38 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: rollover damage
& ejection path--top-back



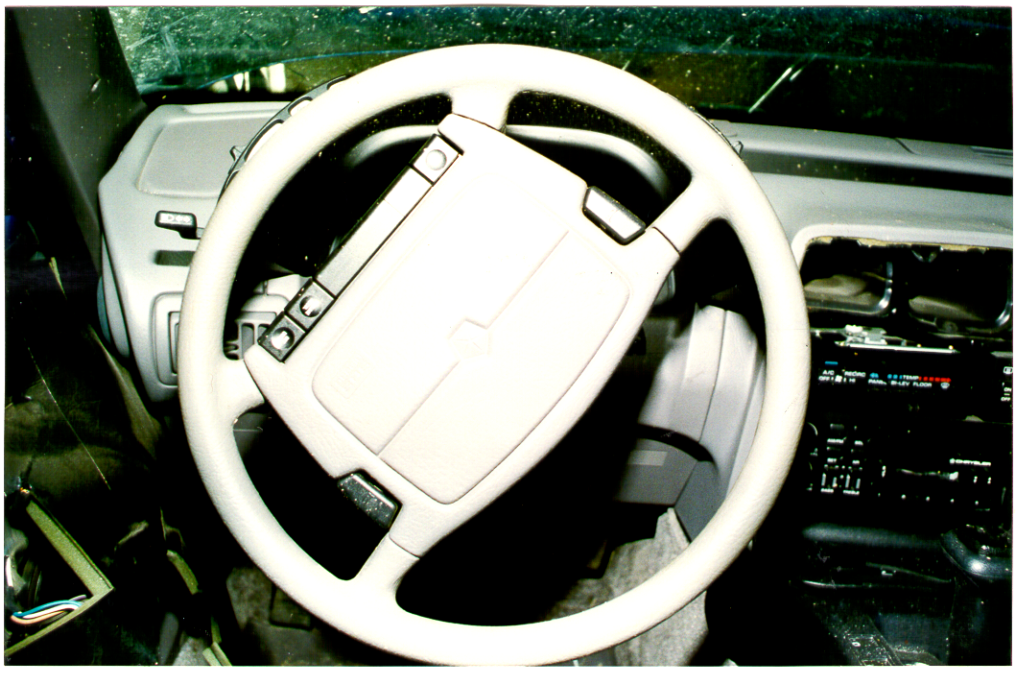
39 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: front damage and
contour gauge from left

40 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: front damage and
contour gauge from right

41 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: driver's area
after seat removed by ISP

42 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: steering wheel &
bag cover-no loading evident

43 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: steering wheel & instrument panel



44 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: closeup steering wheel & air bag cover

45 - [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: center panel
with portions missing

46 -- [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: center & right
instrument panel areas

47 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: driver's area
from right front door

48 - [redacted] 1993
[redacted], Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: rear seats bent
by ejection-from driver area

49 -- [redacted], 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: bent rear seats from top through backlight

50 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: bent rear seats from back through backlight

51 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: driver contact
in right rear cargo area

52 -- [redacted] 1993
[redacted] Illinois
TRC/IU: 93-07, Task: 0103
TRC Photo: driver contact
in RR cargo area from top

SLIDE INDEX

SLIDE INDEX

Slide No.	Vehicle No.	Description	Direction
1	CV	Opposite direction of travel from north	South
2-4	CV	Approach to area of first harmful event	North
5	CV	Approximate location of first harmful event in westbound lane	Northwest
6	CV	Approach to impact with north slope of ditch	Northwest
7,8	CV	Location of rollover event; reconstruction jig placed at final rest position	West
9	CV	Final rest position; case vehicle was on its top facing north at final rest	West
10	CV	Final rest position viewed from north edge of the east-west roadway	North
11	CV	Final rest position viewed from opposite post-impact travel direction	East
12	CV	Opposite direction of travel from north leg of intersection	South
13	#2	Opposite direction of travel from west	East
14-16	#2	Approach to area of first harmful event	West
17	#2	Approximate location of first harmful event in westbound lane	West
18-22	#2	Post-impact path of travel showing left-front wheel gouge in south slope of ditch and right rear wheel gouges and trip point in north slope of ditch	West
23	#2	Small tree impacted during rollover	West
24	#2	Final rest position; vehicle #2 was on its wheels facing east at final rest	West
25	#2	Final rest position viewed from opposite post-impact travel direction	East
26	#2	Final rest position viewed from north edge of the east-west roadway	North

SLIDE INDEX (Continued)

Slide No.	Vehicle No.	Description	Direction
27-64	CV	**Exterior of Case Vehicle**	
27	CV	Front bumper, hood, and radiator	
28	CV	Windshield	
29	CV	Front bumper and hood	
30	CV	Front bumper, hood, and left side	
31,32	CV	Left side	
33	CV	Left side and back	
34,35	CV	Back bumper and hatch	
36	CV	Right quarter panel and right rear wheel	
37	CV	Right side	
38	CV	Right front fender	
39	CV	Close-up of direct damage to front edge of right front door	
40	CV	Right side, front bumper, and hood	
41	CV	Front bumper, hood, and displacement of right front frame	
42-44	CV	Front bumper	
45-47	CV	Right front fender	
48	CV	Trim broken away from left upper quarter panel	
49	CV	Trim broken away from right upper quarter panel	
50	CV	Spoiler broken off from back of rear hatch	
51-55	CV	Top of case vehicle	
56	CV	Dirt jammed in right front window and behind top of right front window frame	
57	CV	Dirt jammed under upper left windshield trim	

SLIDE INDEX (Continued)

Slide No.	Vehicle No.	Description	Direction
58	CV	Dirt jammed in upper left seam of rear hatch	
59-64	CV	Documentation of frontal and right front fender damage	
65-85	CV	**Interior of Case Vehicle**	
65-73	CV	Instrument panel, windshield, and steering wheel; nondeployed air bag and no evidence of occupant contacts present	
74	CV	Right front and rear seats	
75	CV	Right front and rear manual seat belts	
76	CV	Rear seats and left front and rear manual seat belts	
77	CV	Left front and rear manual seat belts	
78-84	CV	Occupant contacts to rear seats and right rear corner of cargo area; also, ejection path of driver	
85	CV	Hinge pin separated from hinge on left side of left rear seat	

IN 9307 #1

IN 9307 #2

IN 9307 #3

IN 9307 #4

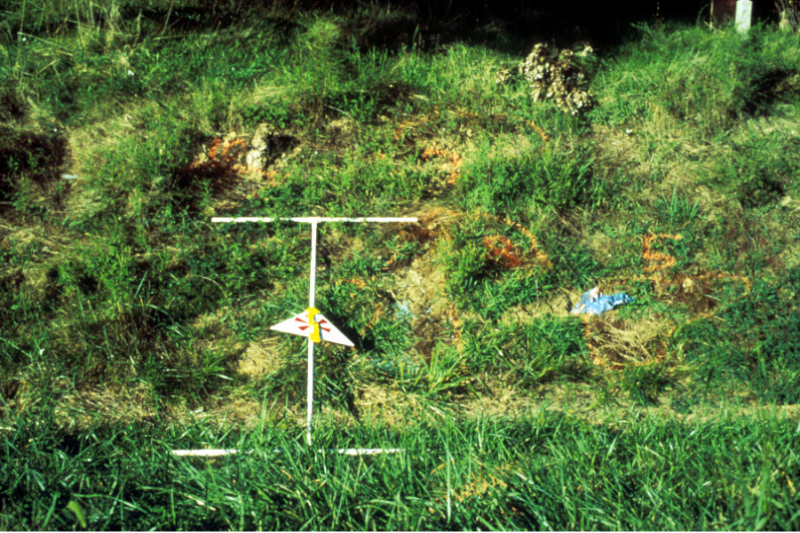
IN 9307 #5

IN 9307 #6

IN 9307 #7

IN 9307 #8

IN 9307 #9



IN 9307 #10

IN 9307 #11

IN 9307 #12

IN 9307 #13

IN 9307 #14

IN 9307 #15

IN 9307 #16

IN 9307 #17

IN 9307 #18

IN 9307 #19

IN 9307 #20

IN 9307 #21

IN 9307 #22

IN 9307 #23

IN 9307 #24

IN 9307 #25

IN 9307 #26

IN 9307 #27

IN 9307 #28

IN 9307 #29

IN 9307 #30

IN 9307 #31

IN 9307 #32

IN 9307 #33
Best Available

IN 9307 #34

IN 9307 #35

IN 9307 #36

IN 9307 #37
Best Available

IN 9307 #38

IN 9307 #39

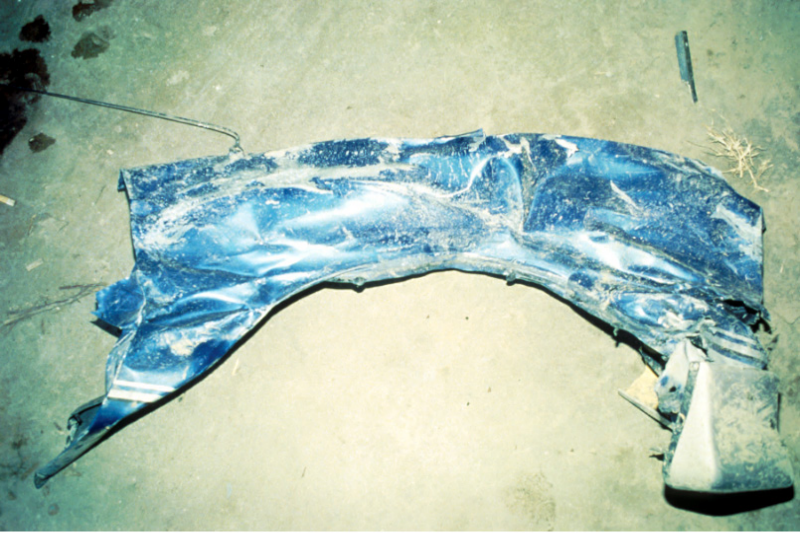
IN 9307 #40

IN 9307 #41

IN 9307 #42

IN 9307 #43

IN 9307 #44



IN 9307 #45

IN 9307 #46

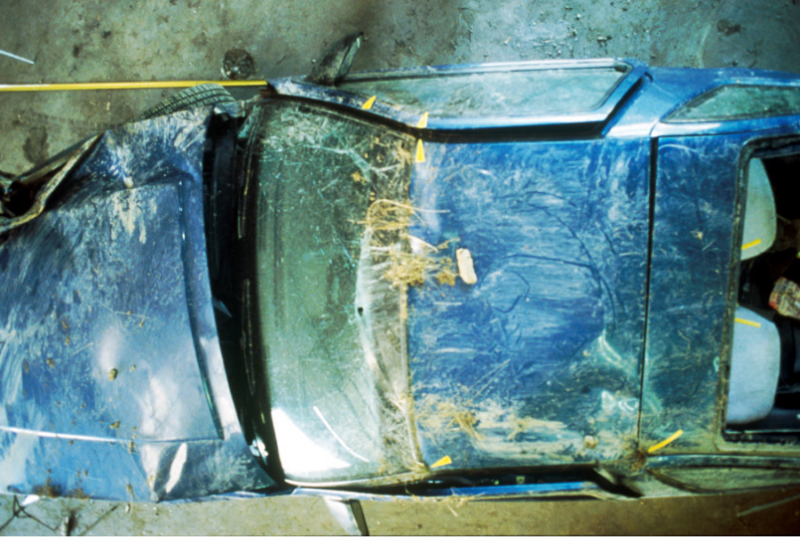
IN 9307 #47

IN 9307 #48

IN 9307 #49

IN 9307 #50

IN 9307 #51
Best Available



IN 9307 #52
Best Available

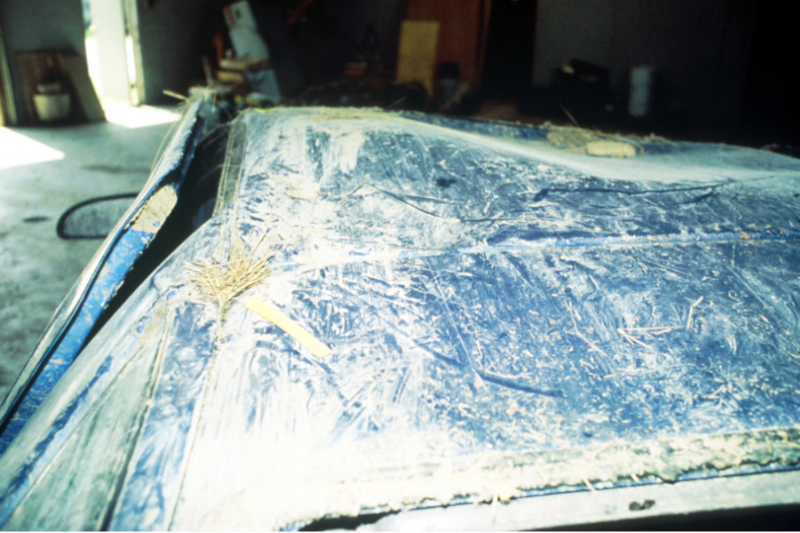
IN 9307 #53
Best Available

IN 9307 #54
Best Available

IN 9307 #55
Best Available

IN 9307 #56

IN 9307 #57



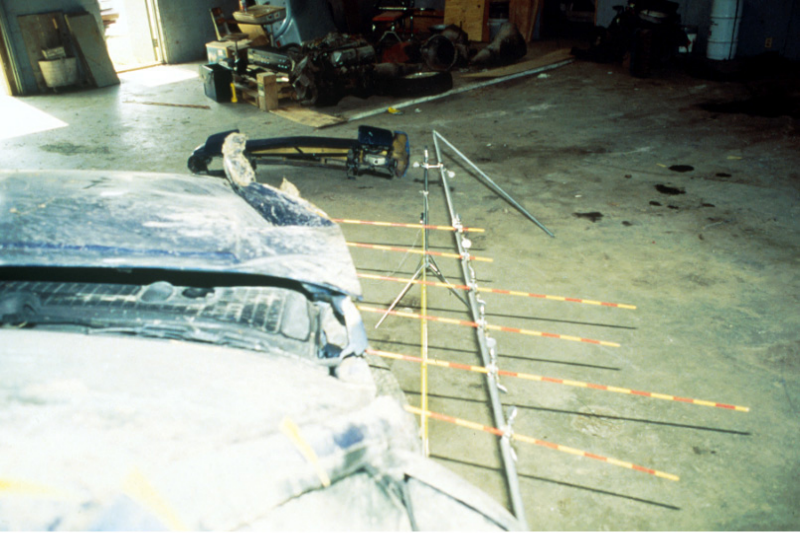
IN 9307 #58

IN 9307 #59
Best Available

IN 9307 #60
Best Available

IN 9307 #61
Best Available

IN 9307 #62
Best Available

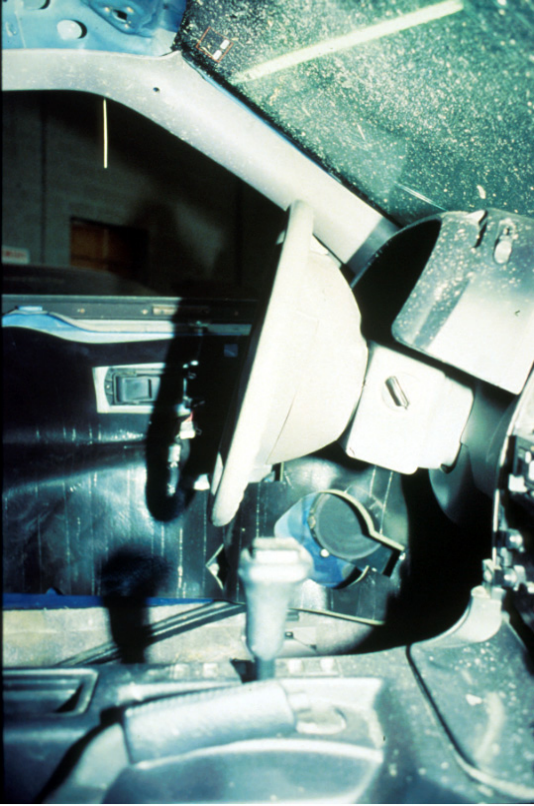


IN 9307 #63

IN 9307 #64

IN 9307 #65
Best Available

IN 9307 #66



IN 9307 #67

IN 9307 #68

IN 9307 #69

IN 9307 #70

IN 9307 #71

IN 9307 #72

IN 9307 #73

IN 9307 #74
Best Available

IN 9307 #75

IN 9307 #76
Best Available

IN 9307 #77

IN 9307 #78
Best Available

IN 9307 #79
Best Available

IN 9307 #80
Best Available

IN 9307 #81
Best Available

IN 9307 #82
Best Available

IN 9307 #83
Best Available

IN 9307 #84
Best Available

IN 9307 #85

ACCIDENT COLLISION MEASUREMENT TABLE

U.S. Department of Transportation
National Highway Traffic Safety Administration

ACCIDENT COLLISION MEASUREMENT TABLE

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number 1 0 | Case Number—Stratum 9 3 0 7

ACCIDENT COLLISION DIAGRAM

LEVEL I
PHYSICAL EVIDENCE ABSENT

To be accomplished when there is no physical evidence present at the scene:

- approximate vehicle orientation at impact and final rest
- applicable road/roadway delineation (e.g., curbs/edge lines, lane markings, median markings, pavement markings, etc.)
- applicable traffic controls (e.g., speed limit)
- north arrow placed on diagram
- sketch required

LEVEL II
PHYSICAL EVIDENCE PRESENT

In addition to the level I tasks noted above, the following must be accomplished when physical evidence is present:

- document reference point and reference line relative to physical features present at the scene
- scale documentation of all accident induced physical evidence
- scaled documentation of all roadside objects contacted
- roadway surface type and condition of applicable roadways
- grade measurements for all applicable roadways and at location of rollover initiation
- scaled representations of the vehicle(s) at pre-impact, impact, and final rest based upon either:
  - a) physical evidence, or
  - b) reconstructed accident dynamics

CRASH DATA

	VEH. #1	VEH. #2	VEH. #3
Heading Angle			
Surface Type	ASPHALT	ASPHALT	
Surface Condition	DRY	DRY	
Grade (v/h) Measurement (between impact and final rest)	0 / 122 cm	2 / 127 cm	
Grade (v/h) Measurement (at location of rollover initiation)	29cm / 122cm		

Reference Point: CONCRETE SURVEY MARKER Reference line: N FOG LINE [redacted]

[redacted] 10.9 N OF [redacted] Rd
ENVIRONMENT

Item	Distance and Direction from Reference Point	Distance and Direction from Reference Line
LIGHT # 4 (6.5 x .6) (METERS)	3.9 E (METERS)	2.9 N (METERS)
DIVOT # 3 (2.5 x 1.1)	4.9 E	5.2 N ✓
DIVOT # 2 (2.6 x 1.5)	7.6 E	6.8 N ✓
DIVOT # 1 (3 x .6)	9.8 E	2.5 N ✓
DIVOT #5	1.4 W	6.6 ✓
# 6 (6.6 x .6)	3.4 W	3.5 N ✓
# 7 (1.5 x .5)	2.7 W	6.4 N
# 8	2.4 W	7.2 N ✓
# 9 (1 x 1)	2.4 W	8.2 N ✓
# 10	4.5 W	7.7 N ✓
# 11 (2.4 x .5)	10.1 W	7.8 N ✓
# 12 (4.8 x .7)	1.7 W	7.7 N
# 13 (1.8 x .6)	27.4 W	7.1 N ✓

HS Form 431A (1/93)

Item	Distance and Direction from Reference Point	Distance and Direction from Reference Line
#14 (SMALL TREE)	30.1 W	7.9 N
#15 (1.8 x .9)	30.5 W	8.6 N
FRP FIELD	40.6 W	5.4 W
STOP SIGN S LEG SCRUMMER	44.3 E	12 S
SCUFF IN WC LANE	25.7 E	1.9 S
"Y" IN WC LANE	20.5 E	1.7 S
BEGIN N/W FOG LINE	10.7 E	0

Appendix A:

Police Accident Report

[redacted]IS TRAFFIC CRASH REPORT

Sheet 1 of 3 Sheets

DRAC	PEDV	TRFD	TRFC	WEAT	DRVA	VIS	VEHD	LGHT
2 1	X	2	4	1	2 1	1 1	1 1	4
U1 U2					U1 U2	U1 U2	U1 U2	

FOR IDOT USE ONLY

INVESTIGATED BY: [redacted] ILLINOIS STATE POLICE

TYPE OF REPORT: [X] ON-SCENE [ ] DESK [ ] SUPPLEMENTARY

[ ] A Property Damage Only / Drive Away
[X] B All Others

AGENCY CRASH REPORT NO.: YR [redacted]

TRFW: 1

ADDRESS NO (OPTIONAL):

HIGHWAY or STREET NAME: [redacted] Rd.

(CIRCLE) [ ] ___FT / MI N E S W [redacted] AT INTERSECTION WITH (NAME OF INTERSECTION OR ROAD FEATURE)

CITY/TOWNSHIP: [redacted]

COUNTY: [redacted]

INTERSECTION RELATED [ ] Yes [X] No

PRIVATE PROPERTY [ ] Yes [X] No

HIT & RUN [ ] Yes [X] No

DATE OF CRASH: [redacted]93 (mo day yr)

TIME: [redacted] [X] AM [ ] PM

ANY SINGLE VEHICLE/PROPERTY DAMAGED OVER $500 [X] Yes [ ] No

NO. MOTOR VEHICLES INVLD: 2

LARS CODE

LARS CODE

VEHT: 1

NO. LANES: X

ALGN: 1

RSUR: 1

VEHU: 2

RDEF: 1

BAC: 97

NO. OCCS: 96

DIR: 1

DIV: 1

-7

UNIT 1

OTH / BIKE / PED / DRIVER

NAME (LAST, FIRST, M.I.): [redacted] 3

STREET ADDRESS: [redacted]

CITY: [redacted] STATE: IL ZIP: [redacted] TELEPHONE: [redacted]

DRIVER LICENSE NO: [redacted]

TAKEN TO: Hospital

EMS AGENCY: [redacted] Amb.

DATE OF BIRTH: [redacted] (mo day yr)

SEX: F SAFT: 3

INJURY: K EJECT: 2

STATE: IL CLASS: D

MAKE: DODGE MODEL: DAYTONA YEAR: 90

PLATE NO.: [redacted] STATE: IL YEAR: 94

VIN: 1B3XG44K2LG[redacted]

VEHICLE OWNER: [redacted]

INSURANCE CO.: [redacted]

OWNER ADDRESS (city, state, zip): [redacted] IL

TELEPHONE: [redacted] POLICY NO.: [redacted]

CIRCLE NUMBER(S) FOR DAMAGED AREA(S)
00 - NONE
10 - UNDER CARRIAGE
11 - TOTAL (ALL AREAS)
12 - OTHER
99 - UNKNOWN
POINT OF FIRST CONTACT: 01

FRONT / REAR

TOWED Y N
DUE TO DAMAGE [X] [ ]
OTHER [ ] [X]
FIRE [ ] [X]
HAZ MAT. [ ]* [X]
COM VEH. [ ]* [X]

UNIT 2

OTH / BIKE / PED / DRIVER

NAME (LAST, FIRST, M.I.): [redacted]

STREET ADDRESS: [redacted]

CITY: [redacted] STATE: IL ZIP: [redacted] TELEPHONE: [redacted]

DRIVER LICENSE NO: [redacted]

TAKEN TO: Hospital

EMS AGENCY: [redacted] Amb.

DATE OF BIRTH: [redacted] (mo day yr)

SEX: M SAFT: U

INJURY: A EJECT: 1

STATE: IL CLASS: H,T

MAKE: PONTIAC MODEL: FIERO YEAR: 87

PLATE NO.: [redacted] STATE: IL YEAR: 93

VIN: 1G2PG1198HP[redacted]

VEHICLE OWNER: [redacted]

INSURANCE CO.: [redacted]

OWNER ADDRESS (city, state, zip): [redacted] IL

TELEPHONE: [redacted] POLICY NO.: [redacted]

CIRCLE NUMBER(S) FOR DAMAGED AREA(S)
00 - NONE
10 - UNDER CARRIAGE
11 - TOTAL (ALL AREAS)
12 - OTHER
99 - UNKNOWN
POINT OF FIRST CONTACT: 07

FRONT / REAR

TOWED Y N
DUE TO DAMAGE [X] [ ]
OTHER [ ] [X]
FIRE [ ] [X]
HAZ MAT. [ ]* [X]
COM VEH. [ ]* [X]

UNIT	SEAT	DOB	SEX	SAFT	INJ	EJCT	NAME / ADDR / TEL	HOSP	DOD
2	W	[redacted]	M	X	B	1	[redacted] IL	[redacted]	Amb
		/ /							
		/ /							
		/ /							
		/ /							

UNIT	EVNO	PRIO	EVNT	COLL	LOC	MOIST
1	1	1	11	5	3	3 U1 1 U2
2			2	7	3	
1			37	6	10	
2	1	1	11	5	3	
2			1	7	5	
2			37	6	10	

DAMAGED PROPERTY OWNER NAME: N/A

DAMAGED PROPERTY: —

PROPERTY OWNER ADDRESS: — CITY STATE ZIP

ARREST NAME: N/A SECTION CITATION NO

ARREST NAME: N/A SECTION CITATION NO

FOR IDOT USE ONLY

DATE POLICE NOTIFIED: [redacted]13 (mo day yr) TIME NOTIFIED: [redacted] [ ] AM [ ] PM

OFFICER ID: [redacted] SIGNATURE: [redacted] BEAT (DIST): [redacted] SUPERVISOR / ID

*IF YES, COMPLETE COMMERCIAL VEHICLE AREA ON BACK OF FORM

Printed by authority of the State of Illinois

SR 1050S 7/94 (Rev. 7/93) IL 494-0729

[redacted] DIAGRAM

INDICATE NORTH BY ARROW

" SEE ATTACHED SCALE DRAWING "

NARRATIVE (Refer to vehicle by Unit No.)

Scene evidence and [redacted] statements imply the following. [redacted] and [redacted] had been partying at a class reunion and at the [redacted] lounge and at the [redacted] lounge in [redacted] Il from app. [redacted] untill just prior to the accident. [redacted] had consumed several beers as had [redacted]. [redacted] and [redacted] got into an argument and [redacted] exited from Unit 1 drivers position at the intersection of [redacted] Rd. and [redacted] Rd. [redacted] moved into the drivers position and drove off leaving [redacted] standing along side the road. [redacted] drove south on [redacted] road over ¼ mile turned around and accelerated back towards [redacted] Rd. [SEE PAGE TWO]

LOCAL USE ONLY
CC#1 = 09
CC#2 = 19

U1 Color BLUE | U2 Color GOLD

U1 Towed by / to [redacted] Body Shop [redacted] IL

U2 Towed by / to [redacted] Body Shop [redacted] IL

COMMERCIAL VEHICLE

UNIT NO. ____

CARRIER NAME

ADDRESS

CITY STATE ZIP

SOURCE
[ ] Side of truck
[ ] Papers
[ ] Driver
[ ] None

GVWR

ID NUMBER
US DOT ____ ICCMC ____
or State No. ____ State name ____ [ ] None

HAZARDOUS MATERIALS: PLACARDED? [ ] Yes [ ] No
If Yes: 4-Digits ____ or Name ____
1-Digit ____

	Y	N	Unk
Hazardous cargo released from truck? (do not count fuel from vehicle fuel tank)	[ ]	[ ]	
Violation of HAZMAT regs. contribute to crash?	[ ]	[ ]	[ ]
Violation of MCS regs. contribute to crash?	[ ]	[ ]	[ ]

Inspection form completed?

	Y	N	Unk		Y	N	Form No.
- HAZMAT	[ ]	[ ]	[ ]	Out of Service?	[ ]	[ ]	
- MCS	[ ]	[ ]	[ ]	Out of Service?	[ ]	[ ]	

IDOT PERMIT #

TRAILER WIDTH(S)	0-96"	97-102"	Over 102"
Trailer 1	[ ]	[ ]	[ ]
Trailer 2	[ ]	[ ]	[ ]

TRAILER LENGTH(S) - ft
Trailer 1 ____
Trailer 2 ____

VEHICLE LENGTH (TOTAL) - ft ____

NO. OF AXLES ____

[ ] IN CITY OF / [ ] NEAREST CITY: Miles N E S W of: (Circle)

VEHICLE CONFIGURATION (Circle Applicable Number)

1 Bus
2 Single unit truck, 2 axles, 6 tires
3 Single unit truck, 3 or more axles
4 Truck/trailer
5 Truck/tractor
6 Tractor/semi-trailer
7 Tractor/doubles
9 Unknown Heavy Truck

CARGO BODY TYPE (Circle Applicable Number)

1 Bus
2 Van/enclosed box
3 Cargo tank
4 Flatbed
5 Dump
6 Concrete mixer
7 Auto transporter
8 Garbage/refuse
9 Unknown

ILLINOIS STATE POLICE UNIVERSAL ADDENDUM FORM	1. Original Report Type	2. Report Date	3. Original Report #
	ACCIDENT	[redacted]-93	[redacted] S

NARRATIVE **PASSENGER/WITNESS/OTHER LIST**

Name	Address	City/State	Age	In Code	Seat Pos	Unit #	Sex

[redacted] drove through the marked stop position and onto [redacted] Rd. north bound off [redacted] Rd. [redacted] was standing 15 feet east of [redacted] Rd. on the south shoulder of [redacted] Rd. [redacted] stated that he witnessed Unit 1 hit Unit 2 in the drivers side. Unit 1 then spun and flipped landing on its top in the ditch North West of the intersection. [redacted] was ejected from unit and was lying on her right side in the ditch.

Unit 2 driver [redacted] was west bound on [redacted] road headed towards [redacted] having just gotten off work from [redacted] in [redacted] Il [redacted]. Unit 1 drove into side of Unit 2 knocking Unit 2 into embankment on North West side of intersection. [redacted] ran over to [redacted] and initially thought she was breathing and then went to unit 2 driver [redacted] to check for injuries. [redacted] slipped on the slick embankment and fell onto thepartially open drivers door of unit 2, causing a minor cut on his lip and a fracture of a lower right rib. [redacted] saw [redacted] was bleeding from the mouth and making sounds of having fluid in his airway. [redacted] began mouth to mouth resusitation after removing [redacted] from unit 2. A few min. later a [redacted] ([redacted]) drove up and stopped recognizing [redacted] as a neighbor. [redacted] asked [redacted] to check [redacted]. [redacted] advised she did and believed [redacted] was dead. [redacted] advised [redacted]. of her belief and went to summond help. Marion County units were the first units at the scene and called for the State Police to handle. R/O arrived at app. [redacted] and requested an accident reconstruction officer to assist. Tpr. [redacted] and Tpr. [redacted] were dispatched. See attached diagram submitted by Tpr. [redacted]

R/O interviewed : [redacted] "witness" , [redacted] "information source", [redacted] [redacted] Fire Chief", [redacted] "EMT". [OVER]

Investigating/Reporting Officer's Signature	ID #	District #	Date
[redacted]	[redacted]	[redacted]	[redacted]-93

NARRATIVE **PASSENGER/WITNESS/OTHER con't.**

Name	Address	City/State	Age	Inj. Code	Seat Pos	Unit #	Sex

[redacted] was uncounsious and in criticle conditions and could not talk with R/O.

[redacted] was transfered from [redacted] to [redacted] Medical center due to the severity of his injuries.

[redacted] accompanied [redacted] from the scene to the hospital and advised that [redacted] was uncounscious the entire time.

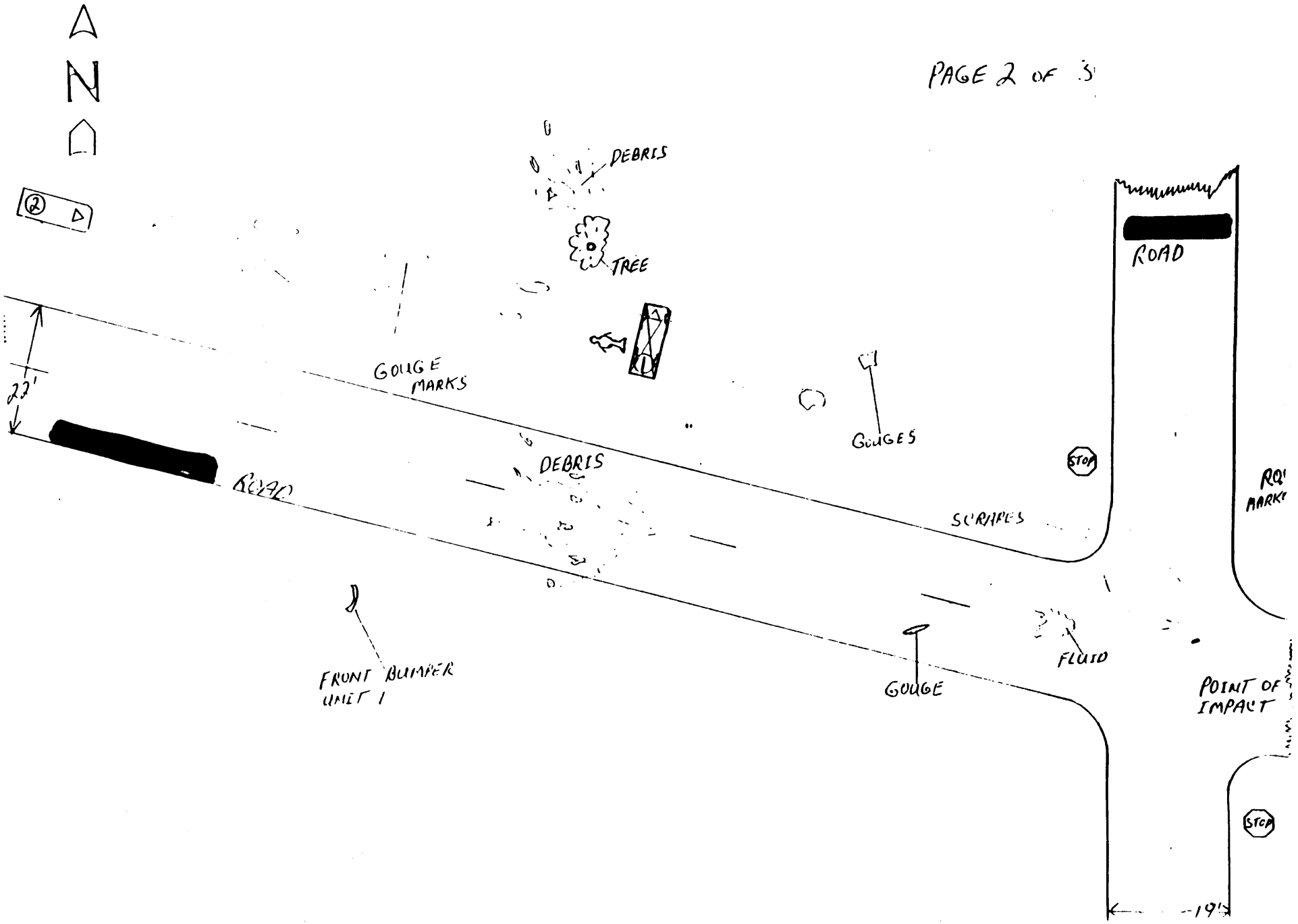
[redacted] (EMT) advised that he accompanied [redacted] to the hospital and that he was very intoxicated and was violent and cursing at [redacted] and repeatedly asked if his wife was dead.

[redacted], [redacted] and [redacted] were transported by [redacted] ambulances seperately.

Time	Vehicle Color	Year	Make	License #	State

Road Block

Page ____ of ____ Pages



Appendix B:

Vector Analysis Program Results

Twelve iterations were used to demonstrate the theoretical Direction of Principle Force that would have resulted to both vehicles based on reasonable upper and lower estimates of each vehicle's speed. Based on the vehicles damage and their post-impact trajectories, the case vehicle's speed was estimated to be between 48 and 72 k.p.h. (30-45 m.p.h.), whereas vehicle #2's speed was estimated to be between 80 and 97 k.p.h. (50-60 m.p.h.). Increments of 8 k.p.h. (5 m.p.h.) were used for both vehicles. Vehicle heading angles were determined from our investigation. Vehicle weights are based on manufacturer specifications and default values (i.e., GV20 and OA08)--from the NASS CDS Data Collection, Coding, and Editing Manual, appropriate to the CRASH3PC protocol. The only iteration that produced a DOPF of less than 90 degrees (i.e., 87 degrees) for the case vehicle occurred when the case vehicle's speed was estimated at 72 k.p.h. (45 m.p.h.) and vehicle #2's speed was estimated at 80 k.p.h. (50 m.p.h.). In every other iteration, the case vehicle's DOPF was estimated at greater than 90 degrees. Therefore, the most likely scenario for the case vehicle is that the Longitudinal Delta V was positive (back to front) rather than negative (front to back).

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)		GV28(V02)		
Ln. Axis Heading Angle	350		320		
CG Heading Angle	350		320		
CRASH 3 Slip Angle	0		0		
Weight-Cargo	0		0		
Weight-Vehicle Curb Wt	1248		1241		
Weight-Passenger(s)	61		78		
Weight-Total	1309		1319		
Estimated Speed	48		80		
Momentum	62832		105520		
PDOF (Degrees)	118		-32	[redacted]/91	STM
PDOF (Clock Direction)	4		11		
Theoretical Delta V	22.7		22.6		
Theoretical Common Vel.		62.0	Post-Crash CG Heading		331

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)		GV28(V02)		
Ln. Axis Heading Angle	350		320		
CG Heading Angle	350		320		
CRASH 3 Slip Angle	0		0		
Weight-Cargo	0		0		
Weight-Vehicle Curb Wt	1248		1241		
Weight-Passenger(s)	61		78		
Weight-Total	1309		1319		
Estimated Speed	56		80		
Momentum	73304		105520		
PDOF (Degrees)	109		-41	[redacted]/91	STM
PDOF (Clock Direction)	4		11		
Theoretical Delta V	21.2		21.0		
Theoretical Common Vel.		65.8	Post-Crash CG Heading		332

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	64	80		
Momentum	83776	105520		
PDOF (Degrees)	98	-52	[redacted]/91	STM
PDOF (Clock Direction)	3	10		
Theoretical Delta V	20.3	20.1		
Theoretical Common Vel.	69.6	Post-Crash CG Heading		333

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	72	80		
Momentum	94248	105520		
PDOF (Degrees)	87	-63	[redacted]/91	STM
PDOF (Clock Direction)	3	10		
Theoretical Delta V	20.1	20.0		
Theoretical Common Vel.	73.4	Post-Crash CG Heading		334

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)			
Ln. Axis Heading Angle	350	320			
CG Heading Angle	350	320			
CRASH 3 Slip Angle	0	0			
Weight-Cargo	0	0			
Weight-Vehicle Curb Wt	1248	1241			
Weight-Passenger(s)	61	78			
Weight-Total	1309	1319			
Estimated Speed	48	89			
Momentum	62832	117391			
PDOF (Degrees)	123	-27	[redacted]/91	STM	
PDOF (Clock Direction)	4	11			
Theoretical Delta V	26.7	26.5			
Theoretical Common Vel.	66.5	Post-Crash CG Heading	330		

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)			
Ln. Axis Heading Angle	350	320			
CG Heading Angle	350	320			
CRASH 3 Slip Angle	0	0			
Weight-Cargo	0	0			
Weight-Vehicle Curb Wt	1248	1241			
Weight-Passenger(s)	61	78			
Weight-Total	1309	1319			
Estimated Speed	56	89			
Momentum	73304	117391			
PDOF (Degrees)	116	-34	[redacted]/91	STM	
PDOF (Clock Direction)	4	11			
Theoretical Delta V	24.7	24.5			
Theoretical Common Vel.	70.2	Post-Crash CG Heading	331		

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	64	89		
Momentum	83776	117391		
PDOF (Degrees)	107	-43	[redacted]/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	23.3	23.1		
Theoretical Common Vel.	74.0	Post-Crash CG Heading		332

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	72	89		
Momentum	94248	117391		
PDOF (Degrees)	97	-53	[redacted]91	STM
PDOF (Clock Direction)	3	10		
Theoretical Delta V	22.5	22.3		
Theoretical Common Vel.	77.8	Post-Crash CG Heading		333

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	48	97		
Momentum	62832	127943		
PDOF (Degrees)	127	-23	[redacted]/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	30.3	30.1		
Theoretical Common Vel.	70.4	Post-Crash CG Heading	330	

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)		
Ln. Axis Heading Angle	350	320		
CG Heading Angle	350	320		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	0	0		
Weight-Vehicle Curb Wt	1248	1241		
Weight-Passenger(s)	61	78		
Weight-Total	1309	1319		
Estimated Speed	56	97		
Momentum	73304	127943		
PDOF (Degrees)	120	-30	[redacted]/91	STM
PDOF (Clock Direction)	4	11		
Theoretical Delta V	28.1	27.9		
Theoretical Common Vel.	74.2	Post-Crash CG Heading	331	

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)		GV28(V02)		
Ln. Axis Heading Angle	350		320		
CG Heading Angle	350		320		
CRASH 3 Slip Angle	0		0		
Weight-Cargo	0		0		
Weight-Vehicle Curb Wt	1248		1241		
Weight-Passenger(s)	61		78		
Weight-Total	1309		1319		
Estimated Speed	64		97		
Momentum	83776		127943		
PDOF (Degrees)	113		-37	[redacted]/91	STM
PDOF (Clock Direction)	4		11		
Theoretical Delta V	26.3		26.1		
Theoretical Common Vel.		77.9	Post-Crash CG Heading		332

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum
Case Number: 10 9307
Vehicle Numbers: 01 and 02
(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)		GV28(V02)		
Ln. Axis Heading Angle	350		320		
CG Heading Angle	350		320		
CRASH 3 Slip Angle	0		0		
Weight-Cargo	0		0		
Weight-Vehicle Curb Wt	1248		1241		
Weight-Passenger(s)	61		78		
Weight-Total	1309		1319		
Estimated Speed	72		97		
Momentum	94248		127943		
PDOF (Degrees)	105		-45	[redacted]/91	STM
PDOF (Clock Direction)	4		11		
Theoretical Delta V	25.1		24.9		
Theoretical Common Vel.		81.7	Post-Crash CG Heading		333

Appendix C:

NASS Accident Form

U.S. Department of Transportation
National Highway Traffic Safety Administration

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9307

IDENTIFICATION

3. Number of General Vehicle Forms Submitted: 02
4. Date of Accident (Month,Day,Year): [redacted] / 93
5. Time of Accident: [redacted]

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS14-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. ✓ SS14 Fatal AOPS: 1
7. ___ SS15 Administrative Use: 0
8. ___ SS16 _____: 0
9. ___ SS17 _____: 0
10. ___ SS18 _____: 0

NUMBER OF EVENTS

11. Number of Recorded Events in This Accident: 05

Code the number of events which occurred in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. 01	13. 01	14. 01	15. R	16. 02	17. 01	18. L
19. 02	20. 01	21. 01	22. R	23. 60	24. 00	25. 0
26. 03	27. 02	28. 01	29. R	30. 60	31. 00	32. 0
33. 04	34. 01	35. 01	36. T	37. 31	38. 00	39. N
40. 05	41. 02	42. 01	43. T	44. 31	45. 00	46. N

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

Appendix D:

NASS Vehicle Forms: Case Vehicle

U.S. Department of Transportation
National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 1 0
2. Case Number - Stratum: 9 3 0 7
3. Vehicle Number: 0 1

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 9 0
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): 0 7
   Dodge
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): 0 1 5
   DAYTONA
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type: 0 3
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number
   1 B 3 X G 4 4 K 2 [redacted]
   Left justify; Slash zeros and letter Z (Ø and Z)
   No VIN—Code all zeros
   Unknown—Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 9 9 9
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown
    ___ mph X 1.6093 = ___ kph

11. Police Reported Alcohol Presence: 1
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver: 2 5
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown
    Source: [redacted]

ACCIDENT RELATED

13. Speed Limit: 0 8 9
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown
    55 mph X 1.6093 = 88.5 kph

14. Attempted Avoidance Maneuver: 0 6
    (00) No impact
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify): _____
    (99) Unknown

15. Accident Type: 8 8
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify): _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

OCCUPANT RELATED

16. Driver Presence in Vehicle: 1
(0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle: 01
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted: 01

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight: 1,250
____Code weight to nearest 10 kilograms.
(045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

2751 lbs X .4536 = 1,248 kgs

Source: [redacted]

20. Vehicle Cargo Weight: 0,000
____Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

__,___ lbs X .4536 = __,___ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit: 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle: 1
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V): 0
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):
(9) Unknown

24. Rollover: 2
(0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

(5) Rollover--end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle): 0

26. Rear Override/Underride (this Vehicle): 0

(0) No override/underride, or not an end-to-end impact

Override (see specific CDC)
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

(7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle: 350

28. Heading Angle For Other Vehicle: 320

29. Basis for Total Delta V (highest) 6

Delta V Calculated
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

Delta V Not Calculated
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

	Secondary	Highest
30. Total Delta V	999	

____ Nearest kph _____

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

	Secondary	Highest
31. Longitudinal Component of Delta V	+/- 999	

____ Nearest kph _____

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

	Secondary	Highest
32. Lateral Component of Delta V	+/- 999	

____ Nearest kph _____

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption 999.900

____ Nearest 100 joules _____

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 0
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 1
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify):
_____

36. Is this an AOPS Vehicle? 1
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [✓] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 0
    (0) No other drugs present
    (1) Yes (other drug present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
    (0) No DEC process available or given
    (1) DEC process given, results known
    (2) DEC process given, results unknown
    (3) DEC process available, unknown if given
    (8) No driver present

39. Other Drug Specimen Test Type For Driver 1
    (0) No specimen test given
    (1) Blood test
    (2) Urine test
    (3) Other specimen tests (specify): _____
    (7) Unspecified specimen test
    (8) No driver present
    (9) Unknown if specimen test given

DRUG EVALUATION CLASSIFICATION
OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. 0	41. 7
Depressant Drug	42. 0	43. 7
Stimulant Drug	44. 0	45. 7
Hallucinogen Drug	46. 0	47. 7
Cannabinoid Drug	48. 0	49. 7
Phencyclidine (PCP)	50. 0	51. 7
Inhalant Drug	52. 0	53. 7
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. 0	55. 1

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin 1
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify): _____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 1
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify): _____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 4
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 61

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 1
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(8) Non-contact rollover forces (specify): _____
(9) Unknown

63. Direction of Initial Roll 1
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 01
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify): _____
(98) No driver present
(99) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event 1 7

This Vehicle Loss of Control Due To:
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

This Vehicle Traveling
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

Other Motor Vehicle In Lane
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian - unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): _____
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 1
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 1
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avoidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), *****
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9307
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

VIN 1B3XG44[redacted] Model Year 90

Vehicle Make (specify): Dodge Vehicle Model (specify): DAYTONA

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	BEGINS (R) BUMPER CORNER	BUMPER CORNER TO BUMPER CORNER
1A	BEGINS 176 FORWARD OF RR AXLE	195 FORWARD OF RR AXLE
2	RR BUMPER CORNER	RR BUMPER CORNER

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space). FRONT BASELINE SET @ 455cm OFF REAR BUMPER

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts. *@ CORNER OF BUMPER FASCIA

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage Width (CDC)	Direct Damage Max Crush	Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
1A	TOP FRAME OF RADIATOR	*26		129	48	35	26	23	26	37	+58
	FREE SPACE				-36	-32	-31	-31	-32	-36	
	ACTUAL CRUSH				12	3	0	0	0	1	
1	FRAME OF FENDER	57		80	10	15	21	22	30	40	+130
	FREE SPACE				-10	-10.5	-11	-11	-12	-13	
	ACTUAL CRUSH				0	4.5	10	11	18	27	
								WHEEL	DAMAGE		
2	(R) QUARTER PANEL	114		114	0	9	6	0	0	0	-154

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase		97.0	inches	x 2.54	=	246 cm
Overall Length		179.2	inches	x 2.54	=	455 cm
Maximum Width		69.3	inches	x 2.54	=	176 cm
Curb Weight		2,751	pounds	x .4536	=	1,248 kg
Average Track		57.6	inches	x 2.54	=	146 cm
Front Overhang	42.7-43.8		inches	x 2.54	=	108-111 cm
Rear Overhang	38.4-38.7		inches	x 2.54	=	98 cm
Undeformed End Width			inches	x 2.54	=	142 cm
Engine Size: cyl./displ.			cc	x .001	=	. L
			CID	x .0164	=	2.5 L

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

a. Rotation physically restricted

RF 2
LF 1
RR 1
LR 2

b. Tire deflated

RF 1
LF 1
RR 1
LR 2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☑ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase	246	cm
Overall Length	455	cm
Maximum Width	176	cm
Curb Weight	1248	kg
Average Track	146	cm
Front Overhang		cm
Rear Overhang		cm
Undeformed End Width	142	cm
Engine Size: cyl./displ.	2.5EFI	L

WHEEL STEER ANGLES

(For locked front wheels or displaced rear axles only)

RF 30 °
LF 20 °
RR ± 00 °
LR ± 00 °

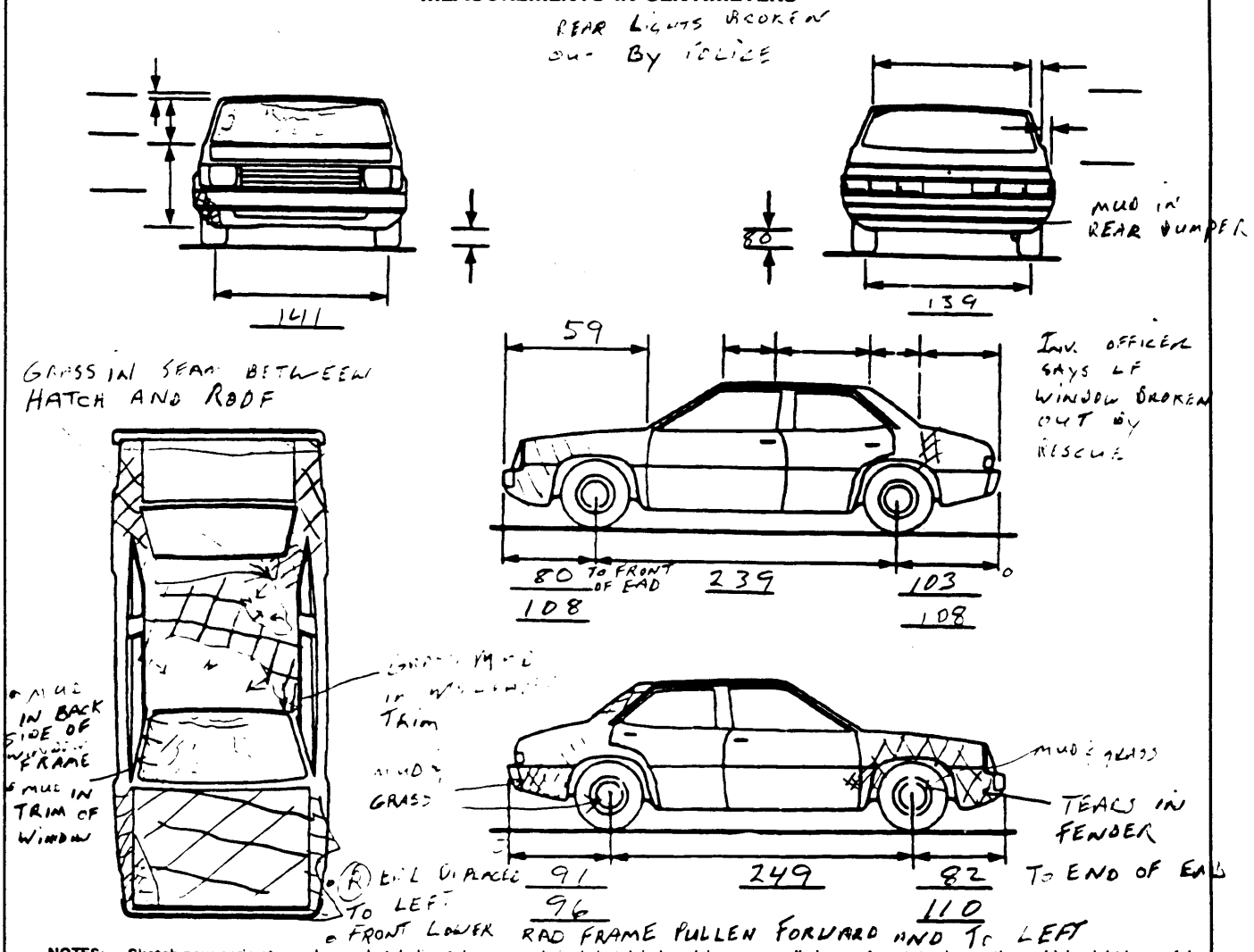
Within ± 5 degrees

DRIVE WHEELS

☑ FWD ☐ RWD ☐ 4WD

Approximate Cargo Weight _____ kg

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify): _____
- (35) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision — details unknown

Collision With Fixed Object
- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision with Nonfixed Object
- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object
- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	02	120	—	R	Y	E	W	03
02	60	000	—	R	B	E	W	03
04	61	000	—	T	D	D	0	03

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 02	6. 04	7. R	8. Y	9. E	10. W	11. 03

Second Highest Delta "V"

12. 02	13. 60	14. 00	15. R	16. B	17. E	18. W	19. 02

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C_1	C_2	C_3	C_4	C_5	C_6	22. ±D
80	000	005	010	011	018	027	⊕⊖ 130

Second Highest Delta "V"

23. L	24. C_1	C_2	C_3	C_4	C_5	C_6	25. ±D
118	000	009	006	000	000	000	+ − 154

26. Are CDCs Documented but Not Coded on The Automated File? 1
(0) No
(1) Yes

27. Researcher's Assessment of Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

28. Original Wheelbase 246
246 Code to the nearest centimeter
(999) Unknown

97.0 inches X 2.54 = 246 centimeters

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? 0
(0) No post manufacturer modifications
(1) Yes - post manufacturer modifications (specify): _____
_____
_____
(Include photograph of CERTIFICATION PLACARD in case report)
(9) Unknown if vehicle is modified

30. Fire Occurrence 0
(0) No fire

Yes, fire occurred
(1) Minor
(2) Major
(9) Unknown

31. Origin of Fire 0
(0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify): _____
(9) Unknown

32. Type of Fuel Tank 1
(0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS *** (I.E., GV09 = 0 OR 9 AND GV36 = 0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9307
3. Vehicle Number 01

INTEGRITY

4. Passenger Compartment Integrity 11
(00) No integrity loss

Yes, Integrity Was Lost Through
(01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify):
(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 0 8. RR 0 9. TG/H 9

(0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify):
(9) Unknown UNKNOWN IF HATCH JAMMED SHUT OR WILL OPEN

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision
(1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify):
(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 6 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 8

(0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing LF IN UP POSITION GLASS IN TOP OF TAILGATE
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 6 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As 0

Type of Window/Windshield Glazing

31. WS 1 32. LF 2 33. RF 0 34. LR 0 35. RR 0
36. BL 2 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing
(1) AS-1 — Laminated
(2) AS-2 — Tempered
(3) AS-3 — Tempered-tinted
(4) AS-14 — Glass/Plastic
(8) Other (specify):
(9) Unknown

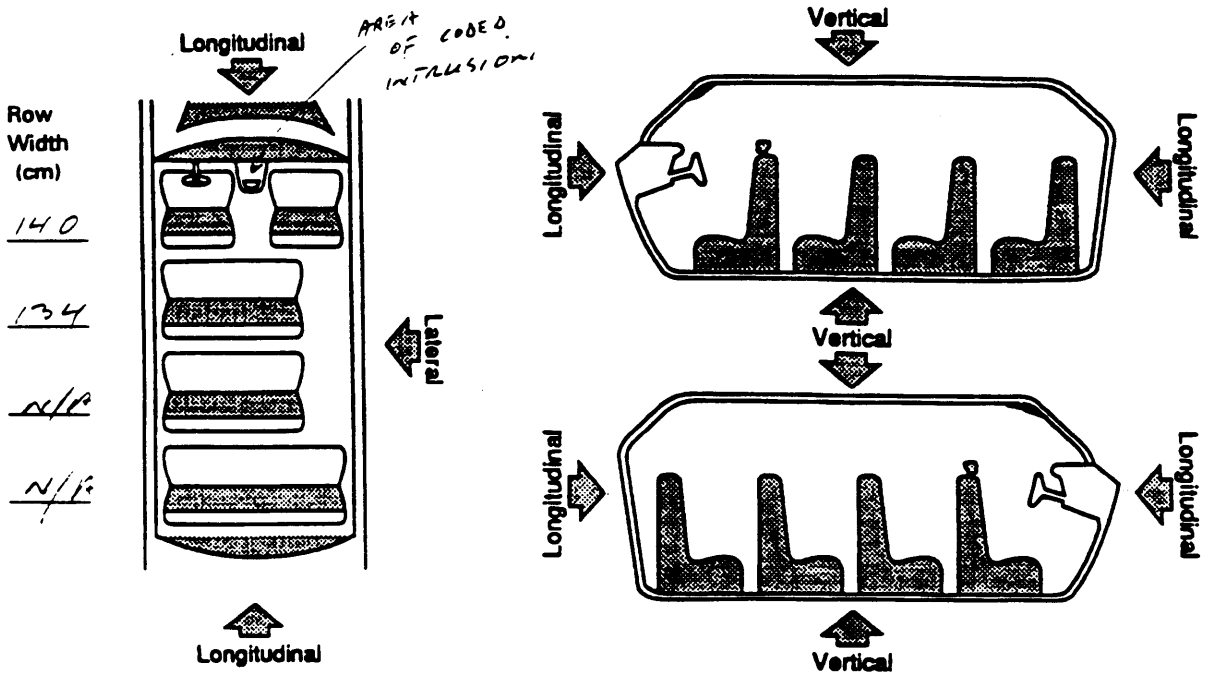
Window Precrash Glazing Status

39. WS 1 40. LF 2 41. RF 0 42. LR 0 43. RR 0
44. BL 1 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters) COMPARISON VALUE	–	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
11	ROOF	34	–	33.5	=	.5	
11	W/S HEADER	33	–	32.5	=	.5	
11	WINDSHIELD	illegible	–	illegible	=	.5	
12	ROOF	34	–	31	=	3	VERT
12	W/S HEADER	33	–	30	=	3	VERT
12	WINDSHIELD	illegible	–	33	=	2	
13	ROOF	CLEARLY < 3cm	–		=		
13	W/S HEADER		–		=		
13	WINDSHIELD		–		=		
21	ROOF		–		=		
21	ROOF SIDE RAIL		–		=		
21	BACKLIGHT HEADER		–	N/	=		
22	" "		–		=		
			–		=		
			–		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. 12	48. 12	49. 1	50. 1
2nd	51. 12	52. 15	53. 1	54. 1
3rd	55.	56.	57.	58.
4th	59.	60.	61.	62.
5th	63.	64.	65.	66.
6th	67.	68.	69.	70.
7th	71.	72.	73.	74.
8th	75.	76.	77.	78.
9th	79.	80.	81.	82.
10th	83.	84.	85.	86.

LOCATION OF INTRUSION

Front Seat
- (11) Left
- (12) Middle
- (13) Right

Second Seat
- (21) Left
- (22) Middle
- (23) Right

Third Seat
- (31) Left
- (32) Middle
- (33) Right

Fourth Seat
- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify) _____
- (99) Unknown

INTRUDING COMPONENT

Interior Components
- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify): _____
- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

Exterior Components
- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION
- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION
- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	–	DAMAGE VALUE	=	DEFORMATION
	–		=	
	–		=	
	–		=	
	–		=	

No Apparent Damage

STEERING COLUMN

87. Steering Column Type — 2
(1) Fixed column
(2) Tilt column
(3) Telescoping column
(4) Tilt and telescoping column
(8) Other column type (specify): _____
(9) Unknown
TILTED TO LOWEST POSITION

88. Blank — X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

89. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

90. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

91. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

92. Steering Rim/Spoke Deformation — 00
_____Code actual measured deformation to the nearest centimeter
(00) No steering rim deformation
(01-14) Actual measured value in centimeters
(15) 15 centimeters or more
(98) Observed deformation cannot be measured
(99) Unknown

93. Location of Steering Rim/Spoke Deformation — 00
(00) No steering rim deformation

Quarter Sections
(01) Section A
(02) Section B
(03) Section C
(04) Section D

Half Sections
(05) Upper half of rim/spoke
(06) Lower half of rim/spoke
(07) Left half of rim/spoke
(08) Right half of rim/spoke

(09) Complete steering wheel collapse
(10) Undetermined location
(99) Unknown SW ROTATED CW = 120°

INSTRUMENT PANEL

94. Odometer Reading — ___,___,___,000
_____kilometers—Code to the nearest 1,000 kilometers
(000) No odometer
(001) Less than 1,500 kilometers
(500) 499,500 kilometers or more
(999) Unknown

71,534 miles X 1.6093 = 115,120 odometer

Source: INSPECTION

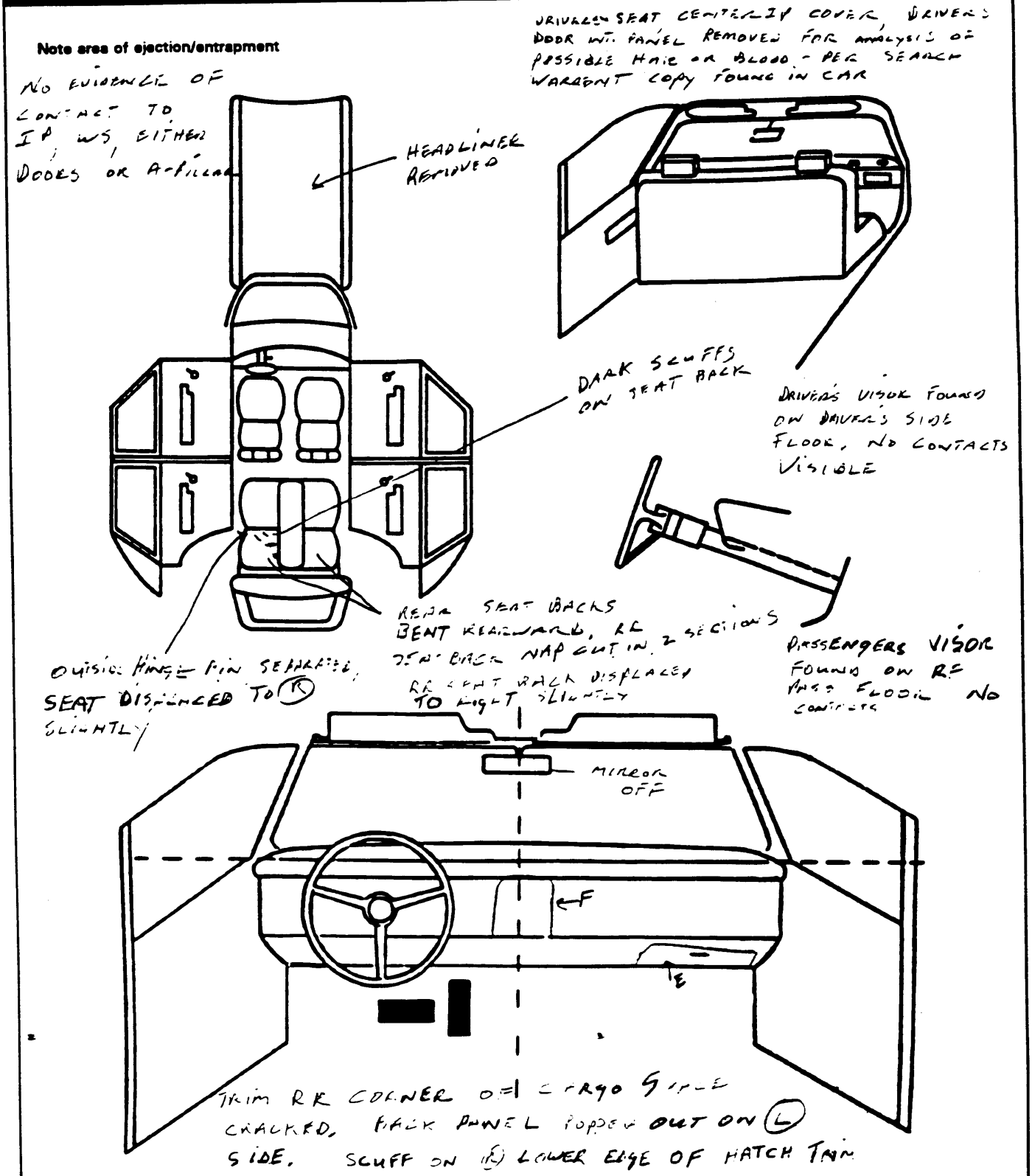
95. Instrument Panel Damage from Occupant Contact? — 9
(0) No
(1) Yes
(9) Unknown
PORTION OF CENTER IP MISSING

96. Knee Bolsters Deformed from Occupant Contact? — 0
(0) No
(1) Yes
(8) Not present
(9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? — 0
(0) No
(1) Yes
(8) Not present
(9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure.
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	40	1	TORSO	SCUFFED AND DISPLACED REARWARD	1
B	62	1	POSSIBLE CHEST	SCUFFED AND CRACKED	1
C	60	1	POSSIBLE HEAD UPPER CHEST	BROKEN OUT	1
D	61	1	POSSIBLE CHEST OR SHOULDER	SCUFFED	2
E	12	?	?	GLOVE BOX DOOR AJAR	3
F	10	?	?	TRIM PANEL AROUND HEATER	3
G				AND RADIO MISSING.	
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT
- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify):_____
- (19) Other front object (specify):

LEFT SIDE
- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify):
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

RIGHT SIDE
- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR
- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify):_____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF
- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR
- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR
- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): PLASTIC FASCIA ON RR CORNER OF HATCH

CONFIDENCE LEVEL OF CONTACT POINT
- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
FIRST	Availability/Function	1	0
	Deployment	4	0
	Failure	1	0

Air Bag System Availability/Function
- (0) Not equipped/not available
- (1) Air bag

Non-functional
- (2) Air bag disconnected (specify): _____
- (3) Air bag not reinstalled
- (9) Unknown

Air Bag System Deployment
- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

Did Air Bag System Fail?
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown

AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function		
	Use		
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function
- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional
- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

Automatic (Passive) Belt System Use
- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative)
- (3) Automatic belt use unknown
- (9) Unknown

Automatic (Passive) Belt System Type
- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

Proper Use of Automatic (Passive) Belt System
- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of automatic belt system (specify): _____
- (9) Unknown

Automatic (Passive) Belt Failure Modes During Accident
- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify): _____
- (9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Ocupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	* 4	0	4 **
	Use	0 0		0 0
	Failure Modes	0		0
SECOND	Availability	4	0	4
	Use	0 0		0 0
	Failure Modes	0		0
THIRD	Availability			
	Use			
	Failure Modes			
OTHER	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

(0) None available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available - type unknown

Integral Belt Partially Destroyed

(6) Shoulder belt (lap belt destroyed/removed)
(7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____
(9) Unknown

* LATCH PLATE SHOW SIGNS OF USE. GUIDE LOOP AND LATCH PLATE GUIDE SHOW NO SIGNS OF LOADING

SCUFFING ON SIDE & SIDE AT TOP - EDGE OF BELT.

** LATCH PLATE SHOWS LITTLE SIGN OF USE

Manual (Active) Belt System Use

(00) None used, not available, or belt removed/destroyed
(01) Inoperable (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used - type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat - type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Uasge						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

   (0) No child safety seat
   (1) Infant seat
   (2) Toddler seat
   (3) Convertible seat
   (4) Booster seat
   (7) Other type child safety seat (specify):

   _____
   (8) Unknown child safety seat type
   (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

   (00) No child safety seat

   Designed for Rear Facing for This Age/Weight
   (01) Rear facing
   (02) Forward facing
   (08) Other orientation (specify):

   _____
   (09) Unknown orientation

   Designed for Forward Facing for This Age/Weight
   (11) Rear facing
   (12) Forward facing
   (18) Other orientation (specify):

   _____
   (19) Unknown orientation

   Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
   (21) Rear facing
   (22) Forward facing
   (28) Other orientation (specify):

   _____
   (29) Unknown orientation

   (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage
   Note: Options Below Are Used for Variables 3-5.

   (00) No child safety seat

   Not Designed with Harness/Shield/Tether
   (01) After market harness/shield/tether added, not used
   (02) After market harness/shield/tether used
   (03) Child safety seat used, but no after market harness/shield/tether added
   (09) Unknown if harness/shield/tether added or used

   Designed With Harness/Shield/Tether
   (11) Harness/shield/tether not used
   (12) Harness/shield/tether used
   (19) Unknown if harness/shield/tether used

   Unknown If Designed With Harness/Shield/Tether
   (21) Harness/shield/tether not used
   (22) Harness/shield/tether used
   (29) Unknown if harness/shield/tether used

   (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model
   (Specify make/model and occupant number)

   _____
   _____
   _____
   _____

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for **each seat position** in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	SEAT HAS BEEN	0	3
	Seat Type	REMOVED BY	0	01
	Seat Performance	POLICE FOR	0	1
	Seat Orientation	FORENSIC ANALYSIS	0	1
SECOND	Head Restraint Type/Damage	0	NOT A DESIGNATED	0
	Seat Type	05	SEAT POSITION	05
	Seat Performance	5		5
	Seat Orientation	1		1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

(0) No head restraints
(1) Integral — no damage
(2) Integral — damaged during accident
(3) Adjustable — no damage
(4) Adjustable — damaged during accident
(5) Add-on — no damage
(6) Add-on — damaged during accident
(8) Other Specify): _____
(9) Unknown

Seat Type (this Occupant Position)

(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., column supported)
(09) Other seat type (specify): _____
(10) Box mounted seat (i.e., van type)
(99) Unknown

Seat Performance (this Occupant Position)

(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks or "seat back" failed specify: _____
(4) Seat tracks/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify): _____
(7) Combination of above (specify): _____
(8) Other (specify): _____
(9) Unknown

Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify): _____
(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occpant Assessment Form.

EJECTION No [ ] Yes [✓]

Describe indications of ejection and body parts involved in partial ejection(s):

REAR SEAT BACK; SEAT REMAINED (2) HINGE ON LR SEAT BACK SEPARATED PROBABLE OCCUPANT CONTACT (CRACKED PLASTIC TRIM (3) REAR CORNER OF HATCH GLASS.

Occupant Number	11					
Ejection	1					
(Note on Vehicle Interior Sketch) Ejection Area	6					
Ejection Medium	3					
Medium Status	2					

Ejection
(1) Complete ejection
(1) Partial ejection
(3) Ejection, Unknown degree
(9) Unknown

Ejection Area
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.) (specify): _____
(9) Unknown

Ejection Medium
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

Medium Status (Immediately Prior to Impact)
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [ ] Yes [ ]

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

Appendix E:

NASS Vehicle Forms: Vehicle #2

U.S. Department of Transportation
National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 93 07
3. Vehicle Number: 02

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 87
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): 22
   PONTIAC
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): 005
   FIERO GT COUPE
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type: 02
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number
   1G2FG11 9[redacted]
   Left justify; Slash zeros and letter Z (Ø and Ƶ)
   No VIN—Code all zeros
   Unknown—Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 999
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown
    ___ mph X 1.6093 = ___ kph

11. Police Reported Alcohol Presence: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown
    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver: 96
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown
    Source: PAR

ACCIDENT RELATED

13. Speed Limit: 089
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown
    55 mph X 1.6093 = 88.5 kph

14. Attempted Avoidance Maneuver: 07
    (00) No impact
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify): _____
    (99) Unknown

15. Accident Type: 89
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify): _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

OCCUPANT RELATED

16. Driver Presence in Vehicle: 1
    (0) Driver not present
    (1) Driver present
    (9) Unknown

17. Number of Occupants This Vehicle: 01
    (00-96) Code actual number of occupants for this vehicle
    (97) 97 or more
    (99) Unknown

18. Number of Occupant Forms Submitted: 01

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight: 1,240
    ____Code weight to nearest 10 kilograms.
    (045) Less than 450 kilograms
    (610) 6,100 kilograms or more
    (999) Unknown

    ___,___ lbs X .4536 = 1,241 kgs

    Source: _____

20. Vehicle Cargo Weight: 9,990
    ____Code weight to nearest 10 kilograms.
    (000) Less than 5 kilograms
    (450) 4,500 kilograms or more
    (999) Unknown

    ___,___ lbs X .4536 = ___,___ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit: 0
    (0) No towed unit
    (1) Yes—towed trailing unit
    (9) Unknown

22. Documentation of Trajectory Data for This Vehicle: 1
    (0) No
    (1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V): 0
    (0) Not collision (for highest delta V) with tree or pole
    (1) Not damaged
    (2) Cracked/sheared
    (3) Tilted <45 degrees
    (4) Tilted ≥45 degrees
    (5) Uprooted tree
    (6) Separated pole from base
    (7) Pole replaced
    (8) Other (specify): _____
    (9) Unknown

24. Rollover: 4
    (0) No rollover (no overturning)

    Rollover (primarily about the longitudinal axis)
    (1) Rollover, 1 quarter turn only
    (2) Rollover, 2 quarter turns
    (3) Rollover, 3 quarter turns
    (4) Rollover, 4 or more quarter turns (specify): 4 QUARTER TURNS

    (5) Rollover--end-over-end (i.e., primarily about the lateral axis)
    (9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle): 0

26. Rear Override/Underride (this Vehicle): 0

    (0) No override/underride, or not an end-to-end impact

    Override (see specific CDC)
    (1) 1st CDC
    (2) 2nd CDC
    (3) Other not automated CDC (specify): _____

    Underride (see specific CDC)
    (4) 1st CDC
    (5) 2nd CDC
    (6) Other not automated CDC (specify): _____

    (7) Medium/heavy truck or bus override
    (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle: 320

28. Heading Angle For Other Vehicle: 350

29. Basis for Total Delta V (highest) 6

Delta V Calculated
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

Delta V Not Calculated
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

	Secondary	Highest
30. Total Delta V	9 9 9	
____ Nearest kph		

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

	Secondary	Highest
31. Longitudinal Component of Delta V	+ - 9 9 9	
____ Nearest kph		

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

	Secondary	Highest
32. Lateral Component of Delta V	+ - 9 9 9	
____ Nearest kph		

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption 9 9 9 . 9 0 0
____ Nearest 100 joules

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 0
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 0
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify): _____

36. Is this an AOPS Vehicle? 0
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [Y] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 0
    (0) No other drugs present
    (1) Yes (other drug present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
    (0) No DEC process available or given
    (1) DEC process given, results known
    (2) DEC process given, results unknown
    (3) DEC process available, unknown if given
    (8) No driver present

39. Other Drug Specimen Test Type For Driver 0
    (0) No specimen test given
    (1) Blood test
    (2) Urine test
    (3) Other specimen tests (specify): _____
    (7) Unspecified specimen test
    (8) No driver present
    (9) Unknown if specimen test given

DRUG EVALUATION CLASSIFICATION
OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. 0	41. 0
Depressant Drug	42. 0	43. 0
Stimulant Drug	44. 0	45. 0
Hallucinogen Drug	46. 0	47. 0
Cannabinoid Drug	48. 0	49. 0
Phencyclidine (PCP)	50. 0	51. 0
Inhalant Drug	52. 0	53. 0
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. 0	55. 0

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin 9
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify): _____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 1
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify): _____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 4
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 6 1

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 1
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(8) Non-contact rollover forces (specify): _____
(9) Unknown

63. Direction of Initial Roll 1
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 0 1
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify): _____
(98) No driver present
(99) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event 6 6

This Vehicle Loss of Control Due To:
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

This Vehicle Traveling
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

Other Motor Vehicle In Lane
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian - unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): _____
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 1
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 2
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avoidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), *****
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

Appendix F:

NASS Occupant Forms: Case Vehicle Driver

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9307
3. Vehicle Number: 01
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 28
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 2
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 999
Code actual height to the nearest centimeter.
(999) Unknown

___ ___ inches X 2.54 = ___ ___ ___ centimeters

8. Occupant's Weight: 999
Code actual weight to the nearest kilogram.
(999)Unknown

___ ___ ___ pounds X .4536 = ___ ___ ___ kilograms

9. Occupant's Role: 1
(1) Driver
(2) Passenger
(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position: 11
Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture

Abnormal posture
(1) Kneeling or standing on seat
(2) Lying on or across seat
(3) Kneeling, standing or sitting in front of seat
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window
(5) Sitting on a console
(6) Lying back in a reclined seat position
(7) Bracing with feet or hands on a surface in front of seat
(8) Other abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 1
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area 6
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium 3
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) 2
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment 0
    (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
    (0) Not entrapped
    (1) Entrapped
    (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4
(0) None available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown

Integral Belt Partially Destroyed
(6) Shoulder belt (lap belt destroyed/removed)
(7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 0 0
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 0
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of manual belt system (specify): _____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 0
(0) No manual belt used
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

21. Air Bag System Availability/Function 1
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment 4
(0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

23. Are There Indications of Air Bag System Failure? 1
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 0
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): _____
(8) Restrained, type unknown
(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25.* Head Restraint Type/Damage by Occupant at This Occupant Position: 9

(0) No head restraints
(1) Integral—no damage
(2) Integral—damaged during accident
(3) Adjustable—no damage
(4) Adjustable—damaged during accident
(5) Add-on—no damage
(6) Add-on—damaged during accident
(8) Other (specify): _____
(9) Unknown

26. Seat Type (this Occupant Position): 9 9

(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., column supported)
(09) Other seat type (specify): _____
(10) Box mounted seat (i.e., van type)
(99) Unknown

27. Seat Performance (this Occupant Position): 9

(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks or "seat back" failed
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify): _____
(7) Combination of above (specify): _____
(8) Other (specify): _____
(9) Unknown

* DRIVER'S SEAT HAD BEEN REMOVED BY POLICE FOR FORENSIC ANALYSIS.

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 0 0 0
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):
_____
(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):
_____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 0 0
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):
_____
(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):
_____
(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):
_____
(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0 0

32. Child Safety Seat Shield Usage 0 0

33. Child Safety Seat Tether Usage 0 0

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed With Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 4

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment - Mortality 1
(0) No treatment
(1) Fatal
(2) Fatal - ruled disease (specify):

_____

Nonfatal
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(8) Treatment - other (specify):

_____
(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 0
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

_____
(9) Unknown

37. Hospital Stay 0 0
(00) Not Hospitalized
____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

38. Working Days Lost 6 2
____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death 0 1
____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 9 6

41. 2nd Medically Reported Cause of Death 0 1

42. 3rd Medically Reported Cause of Death 0 0
____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(97) Other result (includes fatal ruled disease) (specify):

_____
(99) Unknown

43. Number of Recorded Injuries for This Occupant 0 7
____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/ Function — 0
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use — 0
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type — 0
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive Belt System — 0
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident — 0
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):
(9) Unknown

49. Seat Orientation (this Occupant Position) — 1
(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):
(9) Unknown

STOP - VARIABLES 50 THROUGH 52 ARE COMPLETED BY THE ZONE CENTER

TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score (at Medical Facility) — 01
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood? — 1
(1) No - blood not given
(2) Yes - blood given (specify units):
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) – HCO_3 — 01
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported , HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [✓]

UPDATE CANDIDATE? NO [✓] YES [ ]

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	10	3. Vehicle Number	01
2. Case Number - Stratum	9307	4. Occupant Number	01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.-A.I.S Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5. 3	6. 4	7. 5	8. 02	9. 52	10. 4	11. 2	12. 62	13. 2	14. 1	15. 00
2nd	16. 5	17. 2	18. 9	19. 02	20. 02	21. 1	22. 9	23. 60	24. 2	25. 1	26. 00
3rd	27. 5	28. 2	29. 9	30. 06	31. 02	32. 1	33. 9	34. 60	35. 2	36. 1	37. 00
4th	38. 5	39. 4	40. 9	41. 02	42. 02	43. 1	44. 9	45. 60	46. 2	47. 1	48. 00
5th	49. 5	50. 4	51. 9	52. 06	53. 02	54. 1	55. 9	56. 60	57. 2	58. 1	59. 00
6th	60. 5	61. 5	62. 9	63. 02	64. 02	65. 1	66. 9	67. 60	68. 2	69. 1	70. 00
7th	71. 5	72. 5	73. 9	74 06	75 02	76. 1	77. 9	78. 60	79. 2	80. 1	81. 00
8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.
9th	93.	94.	95.	96	97	98	99.	100.	101.	102.	103.
10th	104.	105.	106.	107.	108	109.	110.	111.	112.	113.	114.

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

CR = Coroner's Report; signature — Registered Pharmacist [RPh]

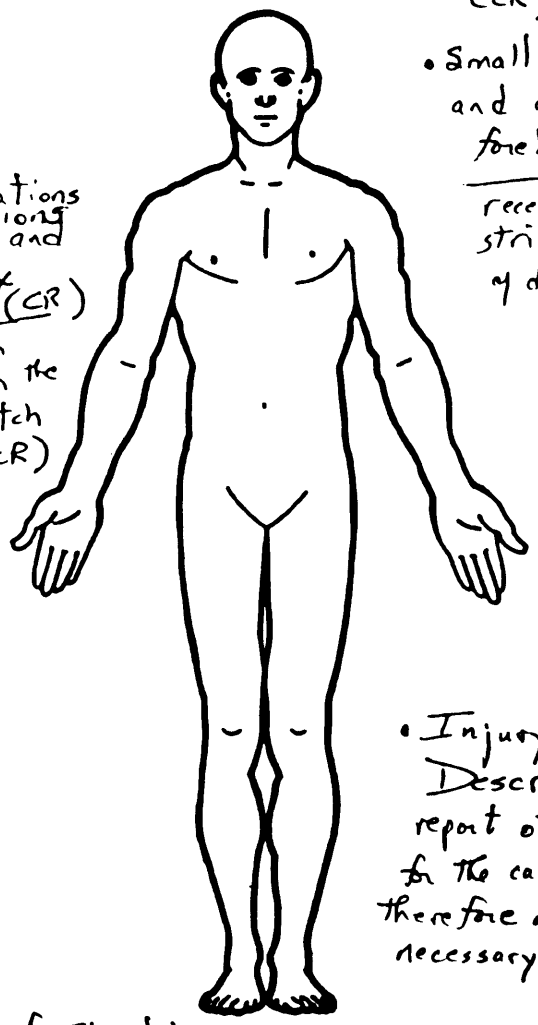
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

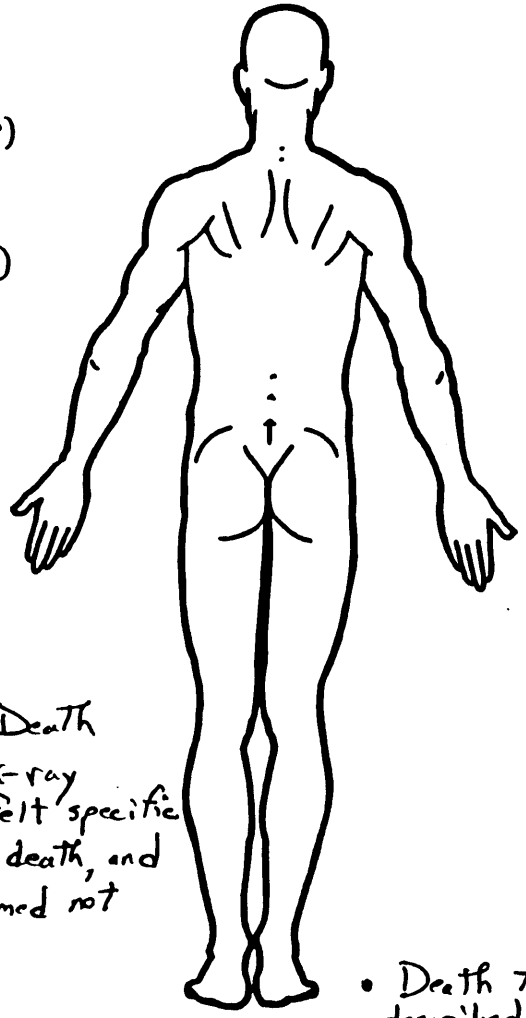
- Injuries resulting in this victim's death were due to massive blunt trauma to the thorax. (CR)
- Small lacerations and abrasions to forehead and face (CR)

received likely, when striking upper center of dash of vehicle (CR)

- Small lacerations and abrasions on abdomen and (lower / upper) thorax (CR)

received when thrust through the rear glass hatch (CR)





- Injury and Cause of Death Description: The X-ray report of findings were felt specific for the cause of the victim's death, and therefore an autopsy was deemed not necessary (CR)
- Death from the described lacerated major vessel would be rapid — no longer than a few minutes (CR)
- Quantity of Blood loss is sufficient to cause cardio-pulmonary arrest from lack of volume (exsanguination). (CR)

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

✓ No

__ Yes

Blood Alcohol Level (mg/dl)

BAL = .245

Glasgow Coma Scale Score

GCSS = ____

Units of Blood Given

Units = ____

Dead @ scene

Arterial Blood Gases

pH = __.__

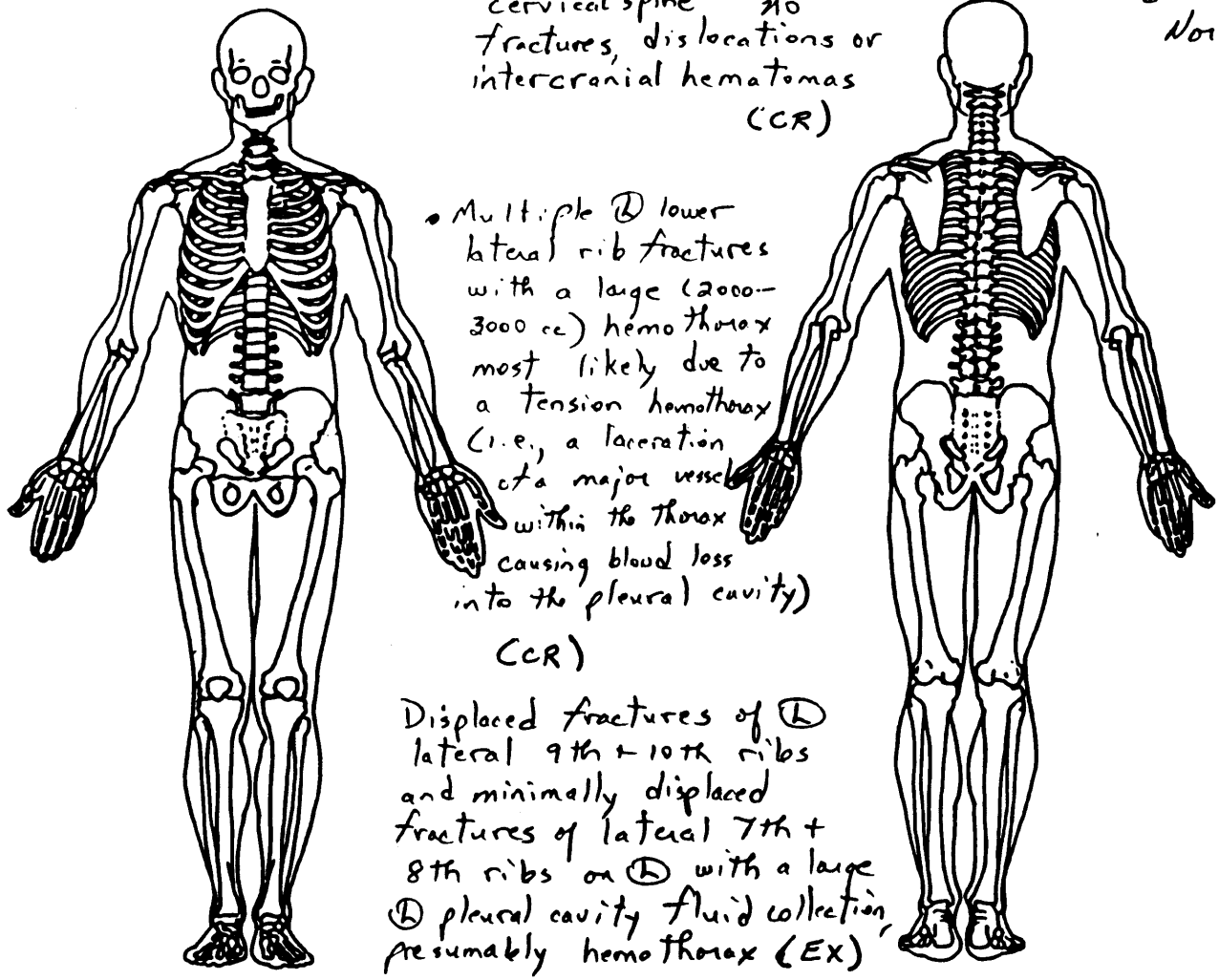
PO_2 = ____

PCO_2 ____

HCO_3 ____

• The victim was not restrained by belts, and the air bag the vehicle was equipped with, failed to function (CR)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



• X-ray: skull and cervical spine — no fractures, dislocations or intercranial hematomas (CR)

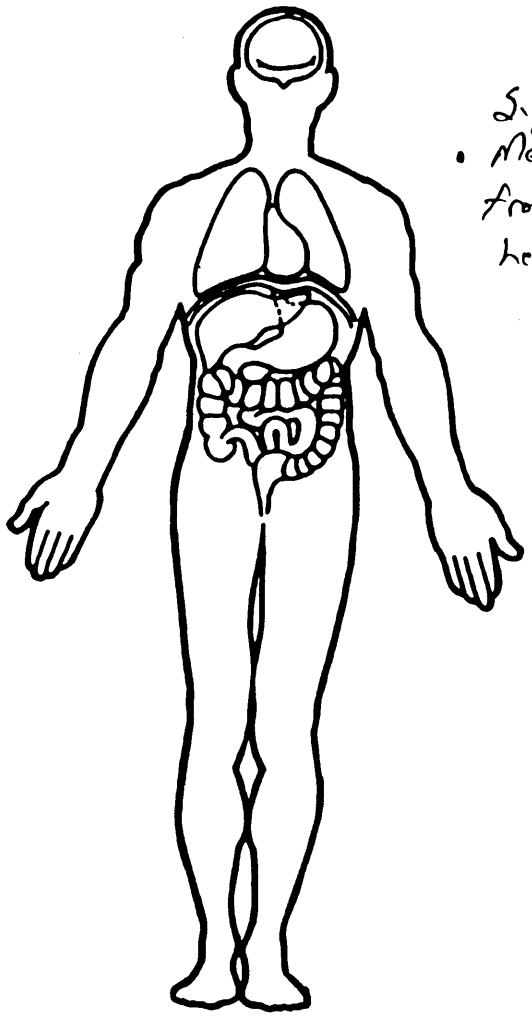
• Multiple Ⓓ lower lateral rib fractures with a large (2000–3000 cc) hemothorax most likely due to a tension hemothorax (i.e., a laceration of a major vessel within the thorax causing blood loss into the pleural cavity) (CR)

Displaced fractures of Ⓛ lateral 9th + 10th ribs and minimally displaced fractures of lateral 7th + 8th ribs on Ⓛ with a large Ⓛ pleural cavity fluid collection, presumably hemothorax (EX)

• X-ray: skull and C-Spine: Normal (EX)

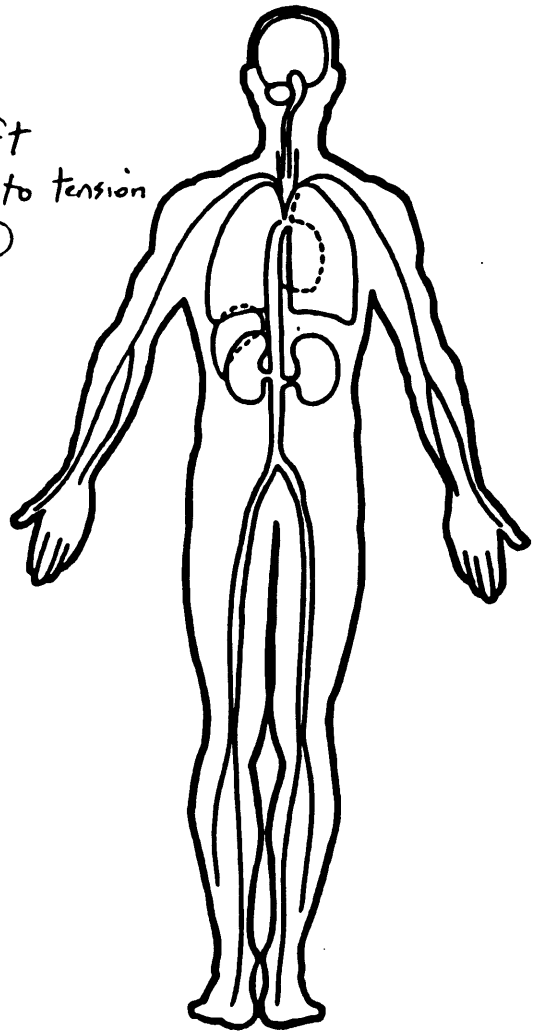
OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



- Significant Mediastinal shift from (L) to (R) due to tension hemothorax on (L)

(CR, EX)



[redacted] CORONER'S OFFICE**PRELIMINARY REPORT FORM

WHO CALLED_____DATE____/____/_____TIME_____

NAME OF DECEASED_[redacted]_____SS#_[redacted]
STREET_[redacted]_____CITY_[redacted]_STATE_IL_ZIP_[redacted]
AGE 28 DOB [redacted] MARITAL STATUS_MARRIED_____RACE_WHITE
PHONE____/[redacted] OCCUPATION_HOMEMAKER_____INDUSTRY_____
CASE NUMBER_[redacted]_____
NEXT OF KIN_____RELATIONSHIP_____
STREET_____CITY_____STATE____ZIP_____
PHONE____/____/____

ONSET OF CAUSE OF DEATH OR FINDING OF BODY.DATE____/____/____.TIME_____
PLACE_____FOUND BY:_____
PRONOUNCED. BY WHO_____
WHERE_____
DATE____/____/____.TIME_____BODY MOVED?_____WHERE,WHY?_____

MODE OF DEATH: NATURAL, ACCIDENTAL, SUICIDAL, HOMICIDAL, OR UNKNOWN
_____.
CAUSE OF DEATH: A)_____
B)_____
C)_____
OTHER CONTRIBUTING:_____
FUNERAL HOME_____REQUESTOR_____
AUTOPSY BY:_____WHERE_____
X-RAYS_____WHERE_____TOXICOLOGY_____

POLICE AND SUPPORT PERSONNEL_____

WITNESS	ADDRESS	PHONE

BRIEF SUMMARY OF CIRCUMSTANCE: INJURY AND CAUSE OF DEATH DESCRIPTION:

THE X-RAY REPORT OF FINDINGS WERE FELT SPECIFIC FOR THE CAUSE OF THE VICTIM'S DEATH, AND THEREFORE AN AUTOPSY WAS DEEMED NOT NECESSARY.

THE VIEWS OF THE SKULL AND CERVICAL SPINE FAILED TO REVEAL ANY FRACTURES, DISLOCATIONS OR INTERCRANIAL HEMATOMAS.

THE CHEST VIEWS REVEAL MULTIPLE LEFT LOWER LATERAL RIB FRACTURES, WITH A LARGE LEFT HEMOTHORAX. I WAS PRESENT WHEN [redacted] INTERPRETTED THE X-RAYS, AND HE STATED THAT THE FLUID VOLUME REPRESENTED BETWEEN 2,000 AND 3,000 CC IN VOLUME. THIS QUANTITY OF BLOOD LOSS IS SUFFICIENT TO CAUSE CARDIO-PULMONARY ARREST FROM LACK OF VOLUME (EXSANGUINATION).

THE X-RAY INTERPRETATION BY [redacted] ALSO STATES THAT THE LARGE FLUID COLLECTION (BLOOD LOSS) WITHIN THE PLEURAL CAVITY WAS MOST LIKELY DUE TO A TENSION HEMOTHORAX. THIS IS INTERPRETTED AS A LACERATION OF A MAJOR VESSEL WITHIN THE THORAX CAUSING THE BLOOD LOSS INTO THE PLEURAL CAVITY. THE X-RAY REPORT FURTHER DESCRIBES THE FLUID ACCUMULATION AS LARGE ENOUGH TO CAUSE A SHIFT IN THE MEDIASTINUM (THE HEART AND ITS' RELATED VESSEL AND TISSUE STRUCTURES) FROM LEFT TO RIGHT.

CONTINUED ON PAGE 3

SEE PAGE 2 FOR MORE REPORT IF NEEDED.ALSO REFERENCE ALL OTHER REPORTS

SIGNED [redacted] DATE [redacted] / 93

CASE NAME: [redacted]
CASE NUMBER: [redacted] DATE [redacted] / 93

THE INJURIES RESULTING IN THIS VICTIM'S DEATH WERE DUE TO MASSIVE BLUNT TRAUMA TO THE THORAX--MOST LIKELY FROM THE STEERING WHEEL OF THE VEHICLE. THE VICTIM WAS NOT RESTRAINED BY BELTS, AND THE AIR-BAG THE VEHICLE WAS EQUIPPED WITH, FAILED TO FUNCTION.

OTHER INJURIES THE VICTIM RECEIVED WERE INCIDENTAL TO HER CAUSE OF DEATH, BUT INCLUDED SMALL LACERATIONS AND ABRASIONS TO HER FOREHEAD AND FACE AND ON HER ABDOMEN AND LOWER THORAX. IT IS LIKELY THAT THE FACIAL AND FOREHEAD TRAUMA WAS RECEIVED WHEN STRIKING THE UPPER CENTER OF THE DASH OF THE VEHICLE, AND THE ABDOMINAL AND UPPER THORAX ABRASIONS AND SMALL LACERATIONS RECEIVED WHEN BEING THRUST FROM THE VEHICLE THROUGH THE REAR GLASS HATCH OF THE VEHICLE.

DEATH FROM THE DESCRIBED LACERATED MAJOR VESSEL WOULD BE RAPID--NO LONGER THAN A FEW MINUTES.

**SEE ATTACHED COPY OF X-RAY REPORT. [redacted]

FORENSIC TOXICOLOGY LABORATORY

[redacted] M.D. Director of Laboratories

COMPREHENSIVE DRUG SCREEN REPORT

Name:	[redacted]
Age:	28
Accession #:	[redacted]
Coroner:	[redacted] Coroner
Pathologist:	
Date of Report:	[redacted]93
Specimen Received Date:	[redacted]93
Date of specimen collection:	[redacted]93
Specimen Type:	Blood / Urine

The following drugs were identified in the submitted specimens:

EPHEDRINE / PSEUDOEPHEDRINE
ANTIPYRINE
NICOTINE and METABOLITE

Ephedrine, Pseudoephedrine & Antipyrine (metabolite of Acetaminophen), Are Ingredients Found In Over the Counter Sinus Allergy Medications Example: "Sudafed-Sinus" = Pseudoephedrine and Acetaminophen (Tylenol). Nicotine Is Present – Victim Was ~~Known~~ a cigarette Smoker.

See second page for a list of drugs screened for and their detection limits

Comments: Whole Blood Ethanol = 245 mg/dl
Urine Ethanol = 263 mg/dl

Blood Ethanol of 245 mg/dl (milligrams PerDecaliter) in terms of standards used by the State of Illinois For Intoxication is 0.245. This is approximately 2½ times the state Standard of 0.1 For Legal Intoxication. It would take a consumption of approximately 10 Beers or 10 ounces of 100 Proof alcohol over a 3 Hour Period Prior To Death [redacted] To Reach this Level.

Signed [redacted]
[redacted] PhD.

Urine Ethanol of 263 mg/dl indicates that an equilibrium for excretion of the alcohol consumed had not yet been reached and that consumption continued until near the time of the fatality. If equilibrium had been reached (excretion at same rate as consumption) the Urine Alcohol Level would approximate 318 mg/dl at a 245 mg/dl Blood alcohol level.

ROENTGENOLOGICAL CONSULTATION REPORT

[redacted] (28)	DATE / TIME / PRIORITY / DATE / ORDER NO.
AGE / SEX / HEIGHT / WEIGHT	METHOD
PHYSICIAN'S: CORONER	EXAMINATION: C-SPINE 2 VIEWS; SKULL 2 VIEWS; CHEST 1 VIEW
DIAGNOSIS	REASON

DATE OF EXAM	DATE OF REPORT	MADE OUT BY	CODE	X-RAY NO.
[redacted]-93		[redacted]		[redacted]

RADIOLOGICAL FINDING

[redacted]-93

SKULL

AP AND LATERAL

Symmetrical bony calvarium without fracture or abnormal erosion. No pineal calcification. No abnormal intracranial calcification. Sella and skull base are normal.

OPINION: 1. NORMAL SKULL.

CERVICAL SPINE

AP and lateral.

Vertebrae are well aligned without fracture, dislocation or prevertebral soft tissue swelling. No degenerative change or destructive process.

OPINION: 1. NORMAL CERVICAL SPINE.

CHEST

AP SUPINE

Displaced fractures of the lateral 9th and 10th ribs and minimally displaced fractures of the lateral 7th and 8th ribs. There is a significant left to right displacement of the mediastinal structures by a large fluid collection in the left pelural cavity most likely representing a tension hemothorax. Heart size is difficult to evaluate but is probably not enlarged. NO definite vascular congestion.

OPINION: 1. MULTIPLE LEFT LOWER LATERAL RIB FRACTURES WITH A LARGE LEFT PLEURAL CAVITY FLUID COLLECTION, PRESUMABLY HEMOTHORAX WITH A CONSIDERABLE LEFT TO RIGHT SHIFT OF THE MEDIASTINUM.

[redacted] M.D.
Radiologist

[redacted], 1993

ORIGINAL - CHART GREEN - PHYSICIAN'S FILE COPY BLUE - CONSULTING PHYSICIAN

Appendix G:

NASS Occupant Forms: Vehicle #2 Driver

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9307
3. Vehicle Number: 02
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 33
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 1
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 999
Code actual height to the nearest centimeter.
(999) Unknown
___ inches X 2.54 = ___ centimeters

8. Occupant's Weight: 999
Code actual weight to the nearest kilogram.
(999) Unknown
___ pounds X .4536 = ___ kilograms

9. Occupant's Role: 1
(1) Driver
(2) Passenger
(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position: 11
Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture

Abnormal posture
(1) Kneeling or standing on seat
(2) Lying on or across seat
(3) Kneeling, standing or sitting in front of seat
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window
(5) Sitting on a console
(6) Lying back in a reclined seat position
(7) Bracing with feet or hands on a surface in front of seat
(8) Other abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 9
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area 9
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium 9
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) 9
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment 9
    (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
    (0) Not entrapped
    (1) Entrapped
    (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 9
(0) None available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown

Integral Belt Partially Destroyed
(6) Shoulder belt (lap belt destroyed/removed)
(7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 9 9
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____

(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____

(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 9
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 9
(0) No manual belt used
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____

(6) Broken retractor
(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Air Bag System Availability/Function 0
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment 0
(0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

23. Are There Indications of Air Bag System Failure? 0
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____

(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 9
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): _____

(8) Restrained, type unknown
(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position 9
    (0) No head restraints
    (1) Integral—no damage
    (2) Integral—damaged during accident
    (3) Adjustable—no damage
    (4) Adjustable—damaged during accident
    (5) Add-on—no damage
    (6) Add-on—damaged during accident
    (8) Other (specify): _____
    (9) Unknown

26. Seat Type (this Occupant Position) 9 9
    (00) Occupant not seated or no seat
    (01) Bucket
    (02) Bucket with folding back
    (03) Bench
    (04) Bench with separate back cushions
    (05) Bench with folding back(s)
    (06) Split bench with separate back cushions
    (07) Split bench with folding back(s)
    (08) Pedestal (i.e., column supported)
    (09) Other seat type (specify): _____
    (10) Box mounted seat (i.e., van type)
    (99) Unknown

27. Seat Performance (this Occupant Position) 9
    (0) Occupant not seated or no seat
    (1) No seat performance failure(s)
    (2) Seat adjusters failed
    (3) Seat back folding locks or "seat back" failed
    (4) Seat track/anchors failed
    (5) Deformed by impact of occupant
    (6) Deformed by passenger compartment intrusion (specify): _____
    (7) Combination of above (specify): _____
    (8) Other (specify): _____
    (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 0 0 0
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):
_____
(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):
_____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 0 0
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):
_____
(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):
_____
(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):
_____
(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0 0

32. Child Safety Seat Shield Usage 0 0

33. Child Safety Seat Tether Usage 0 0

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed With Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 3

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment - Mortality 3

(0) No treatment
(1) Fatal
(2) Fatal - ruled disease (specify):

_____

Nonfatal
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(8) Treatment - other (specify):

_____

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 9

(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

_____

(9) Unknown

37. Hospital Stay 9 9

(00) Not Hospitalized
____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

38. Working Days Lost 9 9

____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death 0 0

____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 0 0

41. 2nd Medically Reported Cause of Death 0 0

42. 3rd Medically Reported Cause of Death 0 0

____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(97) Other result (includes fatal ruled disease) (specify):

_____

(99) Unknown

43. Number of Recorded Injuries for This Occupant 9 7

____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/ Function — 0
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use — 0
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type — 0
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive Belt System — 0
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident — 0
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):
(9) Unknown

49. Seat Orientation (this Occupant Position) — 9
(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):
(9) Unknown

STOP - VARIABLES 50 THROUGH 52 ARE COMPLETED BY THE ZONE CENTER

TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score (at Medical Facility) — 97
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood? — 9
(1) No - blood not given
(2) Yes - blood given (specify units):
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO_3 — 97
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported , HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION? NO [✓] YES [ ]

UPDATE CANDIDATE? NO [✓] YES [ ]